

DOCUMENT RESUME

ED 350 120

RC 018 561

AUTHOR Fafunwa, Aliu Babs, Ed.; And Others
TITLE Education in Mother Tongue: The Ife Primary Education Research Project (1970-1978).
REPORT NO ISBN-978-249133-0
PUB DATE 89
NOTE 196p.
PUB TYPE Books (010) -- Reports - Research/Technical (143) -- Reports - Descriptive (141)

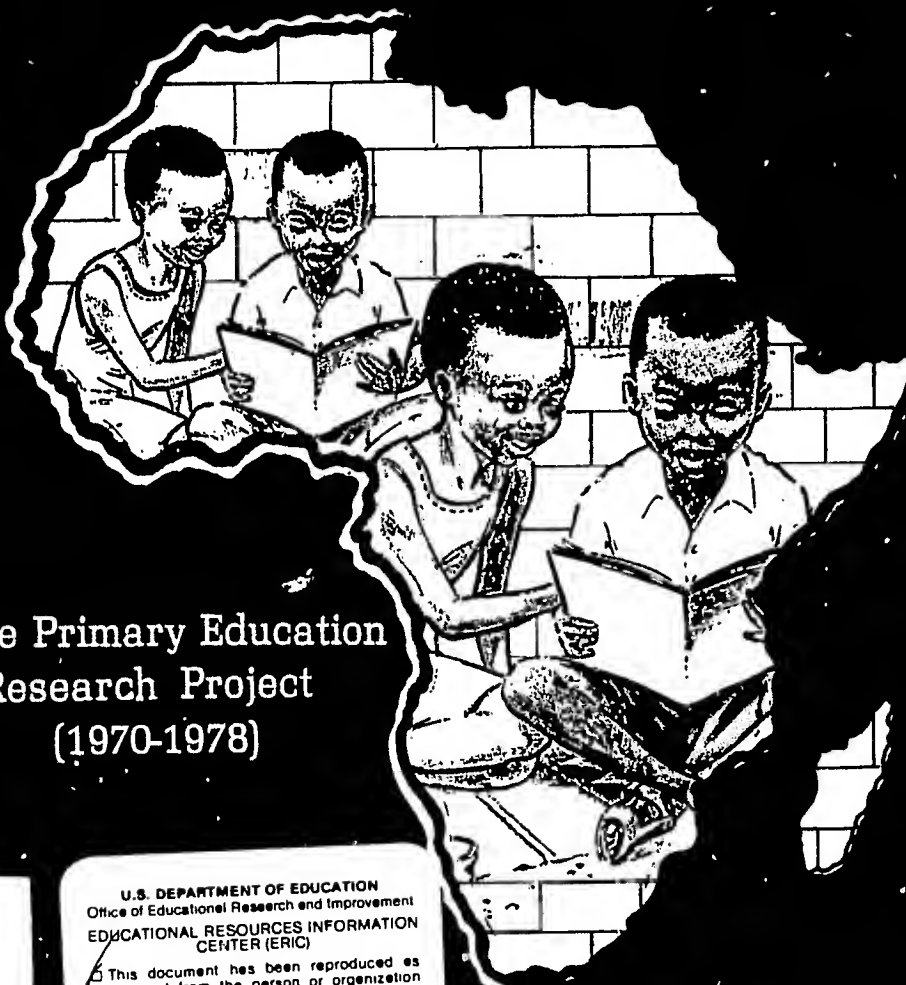
EDRS PRICE MF01/PC08 Plus Postage.
DESCRIPTORS *Academic Achievement; Bilingual Education Programs; Curriculum Development; Educational Policy; Elementary Education; English (Second Language); Foreign Countries; *Language of Instruction; Language Role; Longitudinal Studies; Outcomes of Education; *Program Development; Program Evaluation; Program Implementation; Student Improvement; Teacher Education
IDENTIFIERS *Nigeria; Nigerian Languages; Yoruba (Tribe)

ABSTRACT

This book makes a case for the mother tongue as the medium of education for the first 12 years of the child's life. It describes Nigeria's 6-Year Primary Project, which taught experimental groups of students in their native Yoruba in varying degrees for their first 6 school years, beginning in 1970. The book shows how the mother-tongue education program was planned, organized, and implemented. Chapter 1 traces the historical background of mother-tongue education, describing educational policy and the primary school system under British rule, and the changes made thereafter. Chapter 2 describes plans for the project including initial goals and funding. Chapters 3 and 4 discuss curriculum development and production, describing how panels developed materials for mathematics, science, social studies, Yoruba, and English instruction. Chapter 5 describes teacher preparation, including workshops and on-the-job training. Chapter 6 describes instructional programs and objectives for each subject. Chapter 7 examines problems encountered during the project. Chapter 8 offers a comprehensive evaluation of the project, including methodology and longitudinal achievement test results (from the five sample groups) that compare several variables, including urban and rural settings. Chapter 9 offers observations and recommendations for other countries, noting literacy-rate improvement and enhancement of the instructional language itself. (TES)

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The Ife Primary Education
Research Project
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Education in Mother Tongue: The Ife Primary Education Research Project

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UNIVERSITY PRESS LIMITED
IBADAN
1989

University Press Limited
IBADAN ABUJA AKURE BENIN CALABAR ENUGU JOS KANO LAGOS
MAIDUGURI OWERRI ZARIA

© UNIVERSITY PRESS LIMITED 1989

ISBN 978 249133 0

Printed by Intec Printers Limited, Ibadan, Nigeria
Published by University Press Limited
Three Crowns Building, Jericho, P.M.B. 5095, Ibadan, Nigeria.

DEDICATION

This Book is dedicated to the University of Ife, now Obafemi Awolowo University, under whose congenial academic climate, the six year Primary Education Research Project grew and thrived.

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CONTENTS

	Contents	Page
	Foreword	VII
	PART ONE	
	<i>Introductory</i>	1
Chapter		
I	Background of the Six Year Primary Project	2
—	Introduction	2
—	The Old Educational System	3 — 5
—	The New Education Policy	5 — 7
—	The Primary School System	7
—	Project Antecedent: Educational Anchronism in Africa	7 — 10
—	The Importance of the Mother Tongue as a Medium of Education	10 — 11
—	Language in Education	10 — 16
II	Plans and Strategies	17
—	Assumptions and Objectives of the Project	17
—	Hypothesis	17 — 18
—	Strategies of the Project	18 — 21
—	Funding by Supportive Agencies	22 — 27
	PART TWO	
	<i>Implementation</i>	28
III	Curriculum Development	29
—	Strategies for Curriculum Development	29 — 30
—	Initial Stages of Curriculum Development	30 — 31
—	A. The Yoruba Language Writing Panel	31 — 35
—	B. Matimatiiki (Mathematics) Writing Panel	36 — 45
—	C. Sayensi (Science) Writing Panel	45 — 49
—	D. Social and Cultural Studies Writing Panel	50 — 55
—	E. English Language Writing Panel	55 — 62
IV	Production of Materials for the Project	63
—	The Genesis	63 — 64
—	Strategy for Material Production	64
—	Stages of Production	64 — 66
—	Personnel in the Production Unit	66

V	Teacher Training for the Project	67
—	Background to Teacher Training	67
—	Teacher Training for the Project	68 — 71
VI	Teaching and Learning Situations	72
—	Classroom Guidelines for Both Experimental and Control Classes	72
—	Integration of Learning Areas Through Improved Time-Tabling	72 — 73
—	Teaching of Subject Areas	73 — 89
—	The Teaching Process	90 — 91
VII	Problems Encountered on the Project	92
—	General School Administration	92 — 98
	PART THREE	
	<i>Evaluation</i>	99
VIII	Evaluation	100
—	Introduction	100
—	Research and Evaluation Designs	104 — 113
—	Analyses Procedures	113 — 117
—	Results	117 — 130
—	Monitoring of the Educational Progress of the Products of SYPP	130 — 132
	PART FOUR	
	<i>Conclusions, Implications and Recommendations</i>	133
IX	Conclusions, Implications and Recommendations	134
—	Governments' Reaction to the Project	134 — 136
—	The Travails of Choosing a Language	136 — 141
—	Achievements of the Experiment	141 — 143
—	Conclusions	143 — 144
—	Observations	144 — 146
	Appendix	147 — 161
	Bibliography	162 — 164
	Index	165 — 166

FOREWORD

This Book makes a case for mother-tongue as medium of education for at least the first twelve years of the child's life. If it is true as the psychologists say that the first twelve years is the most formative in a child's life, then mother tongue education for the child should be seen as an inalienable right and its denial be viewed as denial of the child's fundamental human right.

Naturally, there are certain constraints that have to be removed in the implementation of a mother tongue medium programme. These constraints differ from one country to another. This book shows how a mother-tongue education was successfully planned, organized and implemented in one section of Nigeria and how the various problems that emerged were resolved. It also offers suggestions to those African countries that are interested in replicating the Ife mother tongue Six Year Primary Project.

One of the most important factors that militate against the dissemination of knowledge and skills and therefore of rapid social and economic well-being of the majority of people in developing countries is the imposed medium of communication. English and French in the former British and French colonies served as the imperialist language of communication and are still in use today enjoying the same status as before. English, in the case of Nigeria for instance, is the language of commerce, trade, administration, politics, education and international communication. But how many Nigerians communicate in English inside and outside Nigeria? Shall we say 20 million out of a possible 100 million Nigerians? How do the remaining 80 million carry on their daily lives? We know that the Germans, Russians, Japanese, Chinese, and others carry on their daily routine — including research and development — in their own language. We also know that some Germans, Japanese, Chinese, Russians, etc., speak English or French and it is this few that travel around the world to do business or attend international conferences. But 80 per cent of our people who do not speak English, or French, carry on the real business of life and living on their farms and markets, at festivals and religious ceremonies speaking in their own mother tongue - just as the majority of Germans, Russians, Japanese and Chinese do.

We are also aware that our state of underdevelopment has remained for so long due largely to our use of English and French. We impart knowledge and skills almost exclusively in these foreign languages while the majority of our people, farmers and craftsmen perform their daily tasks in Yoruba, Hausa, Igbo, Nupe, Ijaw etc. The question is: why not help them to improve their social, economic and political activities via the mother tongue? Why insist on their learning English or French first before modern technology can be introduced to them? In most developing countries, a few towns and cities operate in English, French, etc., while many rural villages and hamlets operate in the mother tongue; as a result, for the past 35 years

UNESCO has been pioneering and promoting the use of mother tongue as a medium of education, and more actively so in the last decade.

The advantages in the use of mother tongue are many; to deprive the indigenous speaker of the use of his language for education is like removing his soul. Education in the mother tongue removes all the inhibitions that beset the use of a foreign language because the mother tongue:

1. makes it possible for the learner to give free reins to his thoughts and express same in creative language thus paving the way to meaningful education;
2. frees knowledge from the preserves of a microscopic elite that operates in a foreign tongue to the disadvantage of the majority;
3. offers equal opportunity to a large number of people and enables them to participate actively in national construction and reconstruction;
4. compels decentralization of information and ensures free, as opposed to controlled, media;
5. gives a greater number of people greater access to education and personal development, so that the rural population can learn agriculture, improved business methods, etc.;
6. provides greater opportunity for the advice and consent of a large number of groups and thus makes a better defense for the democratic process; and
7. promotes an interactive and interdependent society.

The major aim of formal education is to help the child develop his natural abilities by creating the necessary environment that will stimulate, challenge, and involve him socially, physically, intellectually, and emotionally in the art of learning and doing. It is the job of the school to facilitate learning by creating the ideal situation for the child to discover things for himself. To this end the objective of primary education, for instance, is to develop the whole child through a variety of activities: language art, mathematical processes, science exploration, manipulative activities, social studies and civics, physical exercises, creative thinking and the like.

The views expressed above represent a universally accepted philosophy of education by educators and educational administrators. It is also universally agreed that a child learns best in his or her mother-tongue. The Ife Six Year Primary Project, as reported comprehensively in this book, had amply demonstrated the veracity of this statement.

Jerome Bruner emphasized the importance of mother tongue succinctly when he said:

Man has the capability to receive and translate knowledge in a linguistic form. This permits man to convert knowledge into a form that renders it highly transformable. Language not only permits an enormous condensation of knowledge, but permits us to turn

the knowledge into hypothetical forms so that we may consider alternatives without having to act them in the form of trial and error.¹

Bruner then discussed the expanded code of language:

There is another thing that *Basil V. Bernstein* and others have called the expanded code of language. It is extremely important for school children to grasp the way of using language in a more expanded form in which they can talk about things, bring up associations, identify an object in its connotations.

This is particularly significant for a child using a second language for his school work. Working in Senegal a few years ago, Dr. Greenfield of our laboratory tried a little informal experiment in which she got children to play guessing games in French and in Wolof, and it was touching... the richness of the guesses in Wolof and their poverty in French.

Not that the French language is not rich in its capacity, but for the Wolof child, it was lacking in its web of associations and fantasies. A language that you have never been happy in, never been angry in, never made love in, a language that is only for school, is no language in which to develop the enterprises of the mind.!

I am fully aware of the necessity for mastering languages that give access to the techniques and culture of other people; this is clearly true. But I would like to urge that instead of using the stiff instrument of a new language in which one has felt nothing deeply, but talked about cold subjects, we should arrange for such instruction to be in the native language to allow for the development of what is spoken of as cognitive structure.²

What is called for in developing countries therefore is backward integration, that is to say, grassroots/bootstrap development. We need to develop from within, without being isolationist in our approach. We need to bring our rear to the fore. For too long the head had been dragging the rest of the body and that is principally why we have not made much progress. The situation therefore calls for appropriate language; appropriate method; appropriate technology; gearing of education to basic needs of development; and appropriate teacher education curriculum.

The Ife Six Year Primary Project which has resulted in the publication of this book, *Education in Mother Tongue: The Ife Six Year Primary Project* would not have been possible if it were not for the support of many agencies, groups and individuals. Mention must be made of the excellent role played by the Ford Foundation of New York both financially and professionally. The Foundation supported the project right from its inception in 1969 up to and including the year 1976. It also made the services of the late Mrs Marjorie Shaplin of the University of Missouri available

1. J.S. Bruner, 1972, page 44

2. J.S. Bruner op. cit.

to the Project as its principal consultant. Other American consultants who contributed to the Project professionally were the late Professor Judson Shaplin and Mr Melvin Fox who was the Ford Representative in Nigeria at the time the Project was on course.

Another major contributor was the University of Ife now Obafemi Awolowo University under whose congenial academic climate the Project came to life, grew and thrived. The late Professor H.A Oluwasanmi who was then the Vice-Chancellor of the University took a personal interest in the Project and generously approved the use of University facilities in terms of office space and equipment and the deployment of University staff to the Project either on full time or part time basis. The University later assumed financial responsibility for the Project after the Ford Foundation grant terminated.

The former Western State's Ministry of Education (comprising Ogun, Oyo and Ondo States) was another major contributor to the success of the Project. It offered the use of its schools for the Project and seconded the teachers to the Project. Other contributors to the success of the Project included academic and professional colleagues from the Universities of Ibadan and Lagos and non-education academics from the University of Ife itself where the Project was and is still located. Others were tutors from teacher training colleges, and primary and secondary school teachers in the former Western State.

Invaluable contributors without whose input the Project would not have been successful were the children themselves, the parents and guardians who took us on faith; others were the old non-literate elders in the villages who taught us a lot that we Yoruba speaking academics did not know in terms of Yoruba language and culture as well as appropriate terminologies etc.

Acknowledgement is also due to the internal and external evaluators, particularly Professor E.A. Yoloye and his colleagues from the University of Ibadan's International Centre for Educational Evaluation (ICEE). The report of the evaluation of the Project in Chapter 9 is an eloquent testimony to their contribution to the project.

I cannot conclude this foreword without narrating the following incident. On December 19, 1987 the University of Ife, now Obafemi Awolowo University, awarded me an honorary D. Litt at a very colourful and grand ceremony; three others were also honoured. After the ceremony pictures were being taken, as is customary on such occasions. During the time I was being photographed, a young lady clad in a master's degree gown appeared and requested to take a picture with me and my wife. We readily obliged, but I was curious to know who the young lady was - a friend's daughter? A distant relative, or just a photograph buff? Whoever she was, I did not recognize her! "I am one of your six-year primary project pupils" she excitedly informed me. "My group was the first set which entered in 1970"! That was a happy surprise. I was deeply touched. Right there on the campus of Ife where it all started seventeen years before, one of the six-year-olds who constituted the

Project's "lead-in" group, Miss Seyi Olojede now an assistant lecturer at the Lagos State University was receiving her M.Phil. degree in Linguistics at the same ceremony where I was being honoured! The brief encounter outside the convocation hall was the most rewarding part of the convocation ceremony and an eloquent testimony to the success of the Ife Six Year Primary Project.

Finally, my gratitude goes to my colleagues in the Institute and Faculty of Education who worked tirelessly day and night to ensure the flow of materials from rough drafts to finished products and into the classroom where the real action was.

I must also mention the invaluable contributions of our back-up crew-artists, typists and other junior staff who were as committed and dedicated as the Project team itself. I will end with the words of the Project members who said at the end of the experiment:

'We thoroughly enjoyed ourselves in working on the experiment and particularly with the children. We learnt a lot and our Yoruba, both spoken and written improved tremendously. We can now stand up in public in spite of our English erudition and speak extemporaneously in Yoruba without mixing Yoruba with English! We hope the children had as much fun as we did!'

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January 1st, 1989.

PART ONE

Introductory

I

Background of the Six Year Primary Project

Introduction

As a background to this study, it is essential that we describe briefly the over-all environment within which the Six Year Primary Project was launched in 1970.

Nigeria has a land area of 923,766 sq. km which stretches from the Atlantic coast in the south to the fringes of the Sahara Desert in the North. It is populated by 100 million people (estimate) who speak many languages; the major ones being Hausa (about 30 million) Igbo (about 14 million) and Yoruba (about 15 million) followed by other languages used on the news media e.g. Fulfude, Ibibio, Ijaw, Edo, Efik, Kanuri and Nupe. The three major linguistic groups are to be found in three distinctive geographical areas — Hausa in the North, Ibo in the East and Yoruba in the Western part of the country.

Nigeria was under British Colonial rule from 1856 to 1860. In 1947, the British Colonial government divided the country into three regions: the Northern Region which is predominantly Hausa speaking, the Eastern Region which is largely Igbo speaking and the Western Region which is predominantly Yoruba speaking. The Western Region was later split into two regions — Western Region which is largely Yoruba speaking and the Mid-West which is a conglomeration of tongues. Each region had its own legislature and a colonial governor with a governor-general at the centre. In 1951, the regions were granted internal-self government and in 1960, Nigeria gained its independence from British rule. In 1966, the military took over the reins of government and on October 1, 1979, the country returned to civilian rule under a presidential system. In December 1983, the country once again came under military rule. It will return to civil rule in 1992 according to the current transitional programme of the present military administration. Today, the Federal Republic of Nigeria is made up of twenty-one states and the Capital Territory of Abuja.

The Old Educational System

Prior to the advent of Europeans, all the Nigerian ethnic groups had their own distinctive cultures, traditions, languages and indigenous systems of Education.

However, they all had common educational aims and objectives but methods differed from place to place as dictated by social, economic and geographical circumstances.¹ In the old Nigerian society, the purpose of education was clear: Functionalism was the main guiding principle. The society regarded education as a means to an end and not an end in itself. Education was generally for an immediate induction into the society and a preparation for adulthood. It emphasized sense of responsibility, skill and work ethics, political participation, spiritual and moral values. Children learnt by doing; that is to say, children and adolescents were engaged in participatory education through imitation, recitation and demonstration particularly during ceremonies and rituals. They were involved in practical farming, weaving, cooking, carving, knitting and sewing. While intellectual training comprised storytelling, reasoning activities, local history, legend, the environment (local geography, plants and animals), poetry, riddles, proverbs etc., recreational activities included wrestling, dancing, drumming, acrobatics, etc. Indeed, indigenous education was an integrated experience in that it combined physical and intellectual training with character-building.

At the end of each stage, demarcated either by age level or years of exposure, the child was given a practical test relevant to his experience and level of development and in terms of the job to be done. This was a continuous assessment which eventually culminated in a 'passing out' ceremony or initiation into manhood.

The aim, the content and indeed the methods of indigenous education were intricately interwoven; they were not divided into separate compartments as is the case with the westernized system of education; and of course, the medium of education was the child's mother-tongue throughout.

Islamic religion reached the savannah region of West Africa in the eighth century and spread to the part of northern Nigeria called Kanem-Bornu region in 1085 A.D. It later reached the Hausaland in the early 14th century. As Islam spread so did Islamic education, particularly in Northern Nigeria and later spread to Yorubaland in the 18th century. Islamic education is primarily in Arabic. While Islam had its impact on Nigerian education from the 14th century to the present, the greater impact on the Nigerian system was to come later via Christianity cum Western education in the 19th century.

The first Europeans to set foot on what is now Nigeria were the Portuguese merchants who reached the Gulf of Guinea in the latter part of the fifteenth century. They also visited Lagos and Benin in 1472. The Catholics through the influence of Portuguese merchants established a seminary at the Coast of Nigeria (Sao Thome) in 1571, but their activities were short-lived.

In 1842, the first English speaking Christian missionary arrived in Badagry near Lagos and immediately established a mission, and later, the first Western oriented school in Badagry in 1843. The primary objective of the early Christian missionaries was to convert the benighted African to Christianity via education. Knowledge of

the Bible, the ability to sing hymns and recite catechism, was only available in the English version at that time. The ability to communicate both orally and in writing, were considered essential for a good Christian. The early missionaries also realized the importance of training the local clergy, catechists, lay readers and pious teachers who would minister to the needs of their own people preferably through the local language. However, the early missionaries erroneously assumed that the African culture and religion (animism) had in the words of a former colonial governor of Nigeria, Lord Lugard, 'no system of ethics, and no principle of conduct'². It is with this attitude of mind that they established their schools. The missions principally, Methodist, Anglican, Catholic and Baptist established and administered their schools without interference from the Colonial government from 1843 to 1882. Consequently, each Christian mission designed the curriculum to meet its own need which was to produce catechists, layreaders and the clergy. Even when the colonial government became interested in Nigerian education, it only demonstrated its interest by giving meagre financial support to the missions without interfering with the missions' educational or linguistic policy. The Colonial government was only interested in ensuring that the schools produced clerks and court-interpreters.

Prior to 1925, the British government had no clearly defined policy on education in its African colonies. Before then, missionary schools had multiplied and many Nigerian individuals and communities had established hundreds of schools. For instance, by 1922, government assisted schools numbered only 195 with pupil population of 28,000 while unassisted schools numbered 2,400 with 122,000 pupils. The 1925 memorandum on Education in British colonial territories established the first government policy on education. It stated *inter alia*, 'education should be adapted to local conditions in such a manner as would enable it to conserve all sound elements in local tradition and social organization. The study of the educational use of the vernacular and the provision of textbooks in the vernacular are of primary importance'³. Thus, for the first time in the history of western education in Nigeria, the Colonial government officially approved the use of the mother tongue in education.

As a result of that policy, mother tongue was actively introduced both as a subject and as a medium of instruction for the first two or three classes at the primary education level.

It was the same 1925 memorandum which laid down the system of education in Nigeria thus:

Systems should be established which, although varying with local conditions, will provide elementary education for boys and girls, secondary education of several types, technical vocational education, institutions of higher education which might eventually develop into universities and some form of adult education⁴

The 1925 memorandum more than any other guided the Nigerian educational policy and development from 1925 to the time of independence in 1960.

Throughout most of the colonial period, 1842 to 1959, Nigerian formal education was patterned after the English system. The emphasis was on 'English' both in thought and culture. The ability to speak English fluently and if possible with an Oxford accent was the hallmark of excellence even if the speaker was empty of thoughts and ideas.

Indeed, an illiterate who could speak English was considered educated even if he could not read or write whereas a well cultured Yoruba, Hausa, Edo or Ibo who could only read or write in his mother tongue was considered an 'illiterate'. Both the early missionaries and the early English teachers discouraged and indeed kept Nigerian cultural and linguistic activities out of the school system. Instead, the English culture was promoted in all of its ramifications. In effect, a good *British* subject in Nigeria before independence was one who was a Christian, a speaker of the English language who wore English clothes and exhibited English manners. In those days, it was a serious offence for a secondary school boy or girl to speak in the 'vernacular' within the school premises.

With independence in 1960, Nigerians gradually began to re-examine their role in the world community of nations — moving from being subjects of a colonial power, to being citizens of their own independent country and the world at large. The Nigerian government and its people came to regard education as a key to over-all development. Consequently, the various states of the Federation as well as the Federal Government, spent between 30 to 40% of their annual recurrent budgets on education at the four levels — primary, secondary, higher education as well as adult education, during the first decade of independence.

The country experienced phenomenal growth in educational development between 1960 and 1980. At the primary level, school population increased from 2,912,619 in 1960 to 4,745,805 in 1974. In 1976, the Federal Government introduced universal primary education making primary education free and universal but not compulsory. As a result, the primary school population sky-rocketed from 4.7 million in 1974 to 8.28 million in 1976, 14 million in 1980 and over 16 million in 1988.

At the secondary and the tertiary levels, the story was similar. Student population at the secondary level rose from 55,235 in 1960 to 343,313 in 1971 and to 735,905 in 1977, reaching over 3.5 million in 1988. By the time of independence in 1960, there were only two universities in Nigeria, the University of Ibadan founded in 1948 and the University of Nigeria founded in 1960. By 1970, Nigeria had 6 Universities and as of 1988 there were 20 Federal universities and 8 State universities.

The New Education Policy

In 1977, the military regime in Nigeria issued a new 'National Policy on Education for Nigeria'. It was the outcome of a series of processes which started with a National Conference Curriculum Conference in 1969 followed by seminars and curriculum workshops between 1972 and 1976. The new policy set out in detail the over-all

philosophy of Nigerian education which is based on 'the integration of the individual into a sound and effective citizen and equal educational opportunities for all citizens of the nation at the primary, secondary and tertiary levels.' The new policy is based on the 6-3-3-4 system: Six years of primary education, three years of pre-vocational junior secondary, three years of senior secondary education and four years of university education.

The National Policy on Education stated the following as the general objective of primary education:

- 1.3. Primary education as referred to in this document is education given in an institution for children aged normally 6 to 11. Since the rest of the education system is built upon it, the primary level is the key to the success or failure of the whole system.
- 1.4. This being the case, the general objectives of primary education are:
 - (i) the inculcation of permanent literacy and numeracy, and the ability to communicate effectively;
 - (ii) the laying of a sound basis for scientific reflective thinking
 - (iii) citizenship education as a basis for effective participation in and contribution to the life of the society;
 - (iv) character and moral training and the development of sound attitudes;
 - (v) developing in the child the ability to adapt to his changing environment;
 - (vi) giving the child opportunities for developing manipulative skills that will enable him to function effectively in the society within the limits of his capacity;
 - (vii) providing basic tools for further educational advancement, including preparation for trades and crafts of the locality.

These objectives now form the basis of primary education in all the States of the Federation.

- 1.5. In pursuance of the above objectives;
 - (1) Government has made Primary Education free and universal by implementing the UPE Scheme in September 1976 and proposes to make it compulsory as soon as possible, and
 - (2) Government prescribes the following curricular activities for the primary school; the inculcation of literacy and numeracy, the study of science, the study of the social norms and values of the local community and of the country as a whole through civics and social studies, the giving of health and physical education, moral and religious education, the encouragement of aesthetic, creative

and musical activities, the teaching of local crafts and domestic science and agriculture⁵

The 1969 National Curriculum Conference which resulted in the formulation of the National Policy on Education in 1973 and 1979, was greatly influenced by the position papers and discussions contributed by the organizers of the Ife Six Year Primary Project with particular reference to primary education *vis a vis*, mother-tongue, primary science and social and cultural studies.

The Primary School System

Before the introduction of the new National Policy on Education in 1977, the duration of primary school course in Nigeria varied from State to State; some were for an eight year duration, some for seven and some for six. The entry age also varied from eight to six years; consequently, the children who stayed in school till the end of the course completed the primary cycle between the ages of eleven and fourteen.

It was decided as far back as 1925 (see 1925 Memorandum on Education Policy in British Tropical Africa) that the medium of instruction in the early years of the children's education should be in the 'Vernacular' and English as medium in the last three or four years of the primary education course. Subjects taught under this system included arithmetic, nature study, art and craft, hygiene and sanitation, physical training, local geography and history, mother tongue, English both as a medium and as a subject and religious knowledge. At the end of that primary education course, the children were subjected to a written examination, called Primary Six School Leaving Certificate. The test was an examination set in English and the children had to answer the questions in English. Before a child could be certified as a successful primary school leaver, he must have passed in English, and a number of other subjects. The children's chances of entering a secondary or trade school or indeed of gaining low level employment depended largely on their performance in this single achievement test in English.

With the switching of the medium of instruction from the mother tongue after three years to English in the last three or four years of primary education, the average Nigerian child is usually neither proficient in his mother tongue nor in English, thus defeating one of the primary aims of Nigerian education which is permanent literacy.

Project Antecedent: Educational Anachronism in Africa

The major aim of *primary education* is to help the child develop his natural abilities by creating the necessary environment that will stimulate, challenge and involve him socially, physically, intellectually and emotionally in the art of learning and doing. To this end, it is the responsibility of the educational system to facilitate learning by creating the ideal situation for the child to discover things for himself.

It is also universally agreed that a child learns best in his or her mother tongue. Yet, of all the continents and peoples of the world, it is only in Africa and perhaps in a few other ex-colonial countries that formal education is offered in a language that is foreign to the child.

In Europe, North America, USSR, China and in all other leading countries of the world, the child goes through his primary, secondary and university education in his own mother tongue. In such countries, activities related to trade, commerce, education, civics, cultural and social aspects are conducted in the mother tongue. However, in Africa, south of the Sahara and north of the Limpopo, we educate our children practically in a foreign tongue from primary to post secondary level. While some of the native speakers of English or French have problems in understanding their own language as dramatized in a popular book entitled: *Why Jonny can't read*, the African child has all of Jonny's linguistic problems plus his own, thus, suffering from double jeopardy.

In another paper,⁶ we discussed the average African child's psychological development from age 0 to 6 in terms of his natural environment and how his pattern of development is interrupted or disturbed by his formal school experience at the age of 5 or 6.

The African society of today is in an ambivalent position and so is the child from this environment. Between the ages of 0 and 5, African children are invariably brought up in the traditional African environment, but when they reach the age of 6, one third to one tenth of these children (depending on the African country) enter another educational system almost completely different from the one they were accustomed to; that is, they grew up with a certain cognitive style and suddenly found themselves in another environment with an entirely different approach. This phenomenon has not been given the attention it deserves by African educators and psychologists: we tend to assume that the African child takes this dramatic change in his stride and we expect him to respond to this new situation as an average English, American or German child would. The fact of the matter however is that the child's cognitive equilibrium has been disturbed and this abnormal situation (the deep gulf between traditional non-formal African system of education and the formal, Western oriented system of Education) tends to retard the cognitive process in terms of the anticipated outcome of the Western form of education. More than fifty per cent of the children who entered primary schools dropped out before the end of the course.

A number of studies carried out on 'Primary School dropouts' in Nigeria attributed the dropout phenomenon which ranges from 40 to 60% to:

- (i) premature introduction of English as a language of instruction at the primary school;
- (ii) poorly trained teachers, and
- (iii) inadequate teaching and learning facilities

There is little or no continuity between the African child's home experience and his school experience — a situation that does not arise in the Western countries where in most cases, the child's school experience is a continuation of his home experience and exposure.

The table below is a graphic representation of the point we are making here.

Table 1: The Pre-School Child, the home and the Education Culture

	<i>Indigenous Home and Environment</i>	<i>Partly Indigenous and Partly Western Home and Environment</i>	<i>Western-oriented Home and Environment</i>
1. Play & Games	Indigenous games & Plays with sands, soil, stones, strings, sticks, maize-cobs, catapults, bows and arrows, drums, <i>ayo</i> , <i>ogo</i> , number games; make believe - plays such as marriages, naming ceremonies and mock village meetings; group plays such as dancing, wrestling, guessing etc.	A mixture of both indigenous and Western games & play.	Manufactured toys & gadgets, picture books, games designed primarily with the Western child in mind.
2. Language used	Local language at home, at play and for early cognitive development.	Mixture of local and foreign languages.	Foreign language which is the language of the Western-oriented School.
3. Early Exposure Western Education	Most likely, no previous school experience in immediate family. Child has vague idea about 'School' or is aware of a physical building called 'School'.	Child belongs to first or second generation of schooled-parents and consequently child has idea of books and school.	School tradition runs in the family: parents, uncles, grand-parents etc. Importance of 'School' well imprinted in his consciousness from the earliest possible age. Possibility of Nursery education in English.

Several observations and studies regarding the Nigerian Educational system and language problems had been made over time and reported in a number of documents from many sources.⁷ One of such studies, entitled; *The effect of bilingualism on the*

abstract and concrete thinking ability of Yoruba Children, was conducted by Fafunwa and Bliss in 1967.

The purpose of the study was to examine the learning and thought process of young Yoruba children when they are forced to work in two languages, Yoruba and English.

The children were presented with a set of stimuli (a series of pictures) and were asked to identify them in either English or Yoruba depending on the experimental group to which they had been assigned. They were then asked to recall as many of the objects as they could in either English or Yoruba again depending on their experimental group. Four hundred primary school children were involved in the experiment and were selected from Ile-Ife town and nearby villages.

The first group was taught in Yoruba and was asked to recall in English. The second was taught in English and asked to recall in Yoruba. The third group was taught in Yoruba and was asked to recall in Yoruba. The study showed that the children were at their best when taught in Yoruba and asked to recall in Yoruba.⁸

An earlier unpublished study showed that in most primary schools in Nigeria, the teacher 'does a double task' with his pupils in primary classes four, five and six. That is to say, the teacher employs Yoruba as a medium whenever the children fail to follow class instructions in English. This is inescapable because the children's level of proficiency in English is minimal. It was found for instance that all subjects except Yoruba were treated in this fashion even up to the last year of primary education.

One can of course attribute the lack of language effectiveness to a number of factors: poorly prepared teachers, lack of adequate teaching aids, paucity of appropriate text-books or the poor implementation of the national language policy.

The importance of the Mother Tongue As a Medium of Education

The state of affairs described above led us to wonder aloud as to whether the Nigerian child is not being unnecessarily maimed emotionally and intellectually. We also observed that no other nation in the world except most of the former colonies and those still under colonial rule prepare their children for citizenship in languages foreign to them.

The first twelve years are the most formative period of a child's life, for it is during this period that attitudes and aptitudes are developed. It is also during this period that the child requires diligent care of his physical needs and trained guidance of his mental, emotional and social development. It is our thesis that if the Nigerian child is to be encouraged from the start to develop curiosity, manipulative ability, spontaneous flexibility, initiative, industry, manual dexterity, mechanical comprehension and the co-ordination of hand and eye, he should acquire these skills and attitudes

through the mother-tongue as the medium of education, which after all is the most natural way of learning. This is where the average European or English child has a decided advantage over his African counterpart. While the former is acquiring new skills during the first six years in his mother-tongue, the latter is busy struggling with a foreign language during the greater part of his primary education. The English, German, or the Italian children explore their own natural environment and communicate in their native tongue, thus acquiring at very early stages self-confidence, initiative, resourcefulness, creative reasoning and adaptability-skills necessary for further growth in later stages of development. It is our contention that a child, if helped to lay the foundation of his future development in his own mother-tongue, will likely be in a position to build upon it in later years even in another language.

We are therefore constrained to ask whether this serious defect in our colonial pattern of education has not robbed the child of inventiveness, originality and creativity since he is forced to think in English instead of Yoruba, Hausa, Igbo or any other Nigerian language. It was as a result of the studies and observations mentioned earlier that the Institute of Education, University of Ife launched the much talked-about Six Year Primary Project in January, 1970 with Yoruba as a medium of education throughout the six-year primary course with English taught as a second language from primary one to six.

Language in Education

This section deals with the ideology, policy and implementation of language in education.

(i) The Ideology

It is from the ideological standpoint that a good policy may arise and effective implementation in turn follow⁹. An examination of the National Policy on Education¹⁰ shows very clearly the point we are making. In that document, provisions are made for the use of the mother tongue for pre-primary education and the early part of primary education. There is also the significant statement in Section 1, Paragraph 8 to the effect that every Nigerian child should be encouraged to learn one of the three principal languages in Nigeria (Hausa, Igbo or Yoruba) in addition to the child's learning of his own mother tongue. We are also aware that the five main national objectives in Nigeria as stated in the Second National Development Plan¹¹ are:

- (1) the building of a very democratic society,
- (2) a just and egalitarian society,
- (3) a united, strong and reliable society,
- (4) a dynamic society,
- (5) a land of brightness and full of opportunity for all children.

Thus, it becomes clear that there must be an underlying political ideology behind the various statements in order to make resultant policy a coherent and consistent one. Although emphasis on quantity is not mutually exclusive, it is clear that the choice of a particular ideology in one direction or the other would direct the kind of educational programme that would be embarked upon whether it would be from the egalitarian/quantitative stance or from the elitist/qualitative stand point. The Project is based on the former. In this connection, it can be said that while the Project wanted to achieve as much quality as possible, it had shown more concern for reaching the maximum number of pupils and simultaneously leading them to attain permanent literacy and numeracy. It is this type of underlying ideological stance that had led the Project to use the language (mother tongue), most readily available to all pupils as well as their teachers, as the common medium of instruction.

However, Nigeria is a linguistically heterogeneous nation with English as its official second language. This situation makes it desirable for all Nigerians to be able to communicate freely in English and mandatory for all who wish to receive formal education to do so through the medium of English particularly at the upper primary, secondary and tertiary levels of education. The ideological position of the Project therefore had been to ensure that the pupils acquired English to perform the roles of effective communication at the primary level and later as a medium of instruction in conformity with the government policy. Experience has shown over the years that the English competencies of primary school pupils and their teachers have been such that both have had great difficulty in using English as an effective medium of instruction at that level. It has been common practice for the primary school teacher to switch from English to the mother tongue when teaching concepts and skills, thus creating an unstable bilingual situation in the classroom. This has often caused confusion in the process of learning.

(ii) *The Policy*

Language plays two different roles in education. Like the other components of any formal educational programme, it constitutes an instructional area, a subject, but unlike the other components, it is also the medium of instruction generally. This means that behind any learning process whatever, (except in a few marginal cases) language is always involved. This becomes more complex when the learning involves not monolingual but bilingual or even multilingual situation, which typifies the Nigerian classroom. Under such circumstances, the question arises as to which language will play which role. Is the child's mother-tongue going to play either of both roles of subject and medium throughout? Alternatively, is the English Language to play either or both roles throughout?

The Project embarked upon a policy that encourages the pupils to use their own mother-tongue to obtain maximum self-reliance, growth and development as individuals. At the same time, it makes it possible for them to achieve communicative com-

petence in the English Language to enable them interact with children of other Nigerian ethnic groups in order to function as citizens of the same multi-lingual community. Finally, it also prepares them for the use of English as a medium of instruction. The above stated policy clearly indicates the need to examine the teaching of Yoruba and English for effective learning.

Two major problems were identified:

- (i) the inadequate supply of teachers who were well trained in the use and teaching of both Yoruba and English. It had been erroneously assumed that all teachers can teach their mother tongue competently without training;
- (ii) the inadequacy and inappropriateness of existing Yoruba and English course books. Further findings have revealed that the problem of ineffective teachers is by far the greater and more serious. Whereas inadequate books in the hands of good teachers could still lead to effective and efficient learning on the part of the pupils; in contrast, the most adequate books, when placed in the hands of poor teachers, could be less effective educationally.

It would seem therefore that what really defeats all efforts to improve the standard of primary school teaching in Nigeria today is the tacit assumption underlying the existing policy of the Government concerning the teaching and the use of the English Language as the instructional medium. This assumption is that every primary school teacher can teach the English language effectively and also use it in teaching other subjects to the pupils appropriately and productively. The Project rejected that assumption and instead advocated the policy of using specialist teachers and some gifted regular classroom teachers, who could benefit by further training, to teach the English language as a subject so that the pupils could gain an effective communication-oriented proficiency in the language. From the beginning, the Project believed that that proficiency would at least be comparable to that of pupils under the educational policy that requires the children to learn the language and also learn other school subjects through its medium in the latter half of their primary education programme.

It will be recalled that the existing government policy specifies the teaching of English as a school subject through primary school and its adoption as a medium of instruction after an initial period of using the child's mother tongue for about three years. In contrast, the Project advocated the policy which specifies just the teaching of English as a second language for the purpose of developing in the children effective communicative competence in the language. This means that in terms of hours of exposure, the existing government policy has an advantage over the Project policy.

For example, in the last three years, except when the child learns his mother tongue as a school subject, through the government policy, he is constantly being exposed to the English language in all his lessons. In contrast, the Project expects the child to be exposed to English for the maximum number of hours allocated to the

teaching of English as a subject within the school curriculum. That allocation would be for each of the six years of primary education. The factors that led the Project sponsors to believe in the efficacy of the Project policy were the following:

- (i) the provision of a good model of English language usage;
- (ii) the systematic presentation of well structured language content; and
- (iii) abundant provision of texts and teaching aids.

In contrast, the government policy normally exposes the children to various grades of models most of which are grossly inadequate and inconsistent. For example, it is common knowledge that a usage advocated by the English teacher is often at variance with the usages of the teachers of other subjects in the same school.

Secondly, as a result of the inadequate models presented to the children, they tend to acquire wrong knowledge and skills which they have to unlearn in later life when they are exposed to better models.

Thirdly, the government policy robs the children of the joy of learning secondary language for certain secondary purposes which are desired by the children. Quite often, the children are forced to struggle at the same time with both new concepts and new language forms to express them. Thus, language learning is usually carried out with tears. Maximum joy is derived from learning a second or foreign language when one has the opportunity to learn just those aspects of it that one requires for certain identified purposes. When a policy requires one to learn everything he learns at school through the medium of a second language which one has not mastered, the aspects of the language which one is being called upon to learn may become too technical for one's own personal liking. The Project policy does not impose on the children such constraints. It encourages them to learn to express aspects of normal everyday communication in the new language. So they learn only what they would like to use daily and what they could in fact use to non-speakers of Yoruba around them within the multilingual and multicultural Nigerian community.

Finally, the government policy imposes a very heavy syllabus on the children in order to enable them have maximal capability to learn through the language in the last three years of primary education. To that end, the children have got to acquire very quickly all the basic structures and vocabulary items of the language. Also, they have got to master all the basic skills. In contrast, the Project imposes a less-demanding but more result-oriented syllabus on the children. Their vocabulary items are generally wider and richer but the required syntactic patterns are more functionally-oriented. Since emphasis is on communicative competence and the policy requires the children to become permanently literate through the instrumentality of their mother tongue, the programme can afford to put almost all emphasis on oracy in the first year.

Since the Project sponsors had earlier identified the gross inadequacy of teachers and instructional materials as major problems of the effective use of language in education, it was agreed as a matter of policy that there should be intensive training

of teachers and extensive development of suitable instructional materials. Further discussion on teacher training and material development will be covered in later chapters.

(iii) *Implementation*

The various activities of the Project which aimed at effectively implementing the policy already summarized can be taken together as various aspects of curriculum work. As is well known, curriculum work can be seen in the following parts: Curriculum Planning, Curriculum Development, Curriculum Implementation, Curriculum Evaluation and Curriculum Revision and Renewal. However, in order to present the activities of the Project in relation to its conceptual basis, we shall take up those curriculum parts in later chapters.

Notes

1. See A.B. Fafunwa, *History of Education in Nigeria*. George Allen Allen & Union, London, 1974, pp. 16-49 for further details.
2. A.B. Fafunwa, *Ibid*, Page 81
3. Memorandum on Educational policy in British Tropical Africa and 2374 (1925).
4. *Ibid*.
5. *Ibid*. National Policy on Education, page 12.
6. A.B. Fafunwa, *The Psychological Development of children from 0 to 6 in Developing countries*. UNESCO meeting of Experts, Urbana, Illinois, U.S.A. 1974.
7. (a) UNESCO Monograph on Fundamental Education: Vol. VIII, *The Use of Vernacular Languages in Education*, Paris, 1953.
 (b) E.C. Roland, *Yoruba and English - a problem of co-existence*, "African Language Studies, SOAAS, London, 1963.
 (c) W.E. Bull, *The Use of Vernacular Language in Education*, Hymes, Harper and Row, N.Y., 1964.
 (d) Judson T. Shaplin et al, *Survey of a Proposed National Educational Research Council in Nigeria* - urged urgent investigation into Language instruction in primary school and the relative nature of roles of English and the mother tongue, May, 1962.
 (e) The 1966 report on *English Language Teaching in Nigeria*, co-sponsored by the Nigerian National Universities Commission, Federal Ministry of Education & Funded by the Ford Foundation and the British Council, recommended careful inquiry into the mother tongue and their social and educational utility and a decision on language policy for Nigeria.
 (f) A June 1968 report by Judson & Marjorie Shaplin, commissioned by the Ford Foundation to review Grade II teacher Training & Institutes of Education activities, made lengthy commentary on the problems in the teaching of language & reading in the primary schools of Nigeria.
 (g) Papers contributed at the Week-end Seminar on *Yoruba Language and Literature*. December 13 - 16, 1969 at the University of Ife, Ile-Ife. See A. Afolayan, O. Oyelaran and A.B. Fafunwa.
8. Fafunwa, A.B. Bliss B. "The Effect of Bilingualism on the abstract and concrete Thinking ability of Yoruba Children", University of Ife, Ile-Ife, 1967.
9. Afolayan, A (1984) "The English Language in Nigerian Education as an Agent of Proper Multilingual and Multicultural Development". *Journal of Multilingual and Multicultural Development*. Vol.5 No.1, 1984. Page 1 - 22.
10. Op. cit National Policy on Education.
11. Op. cit page 4.

II

Plans and Strategies

A. Assumptions and Objectives of the Project

The Six-Year Primary Project was first discussed at a meeting between the director of the Institute of Education, University of Ife, Professor A. Babs Fafunwa and the Ford Foundation officials late in 1968. The research design as stipulated in the original proposal is summarized below:

1. Adopt a primary 1 Class of 30 to 40 Yoruba children in a given primary school in Ile-Ife.
2. Teach them in Yoruba as a medium of instruction throughout primary school.
3. Teach English to them as a second language from the first day of school and throughout the course.
4. Arrange with a secondary school in Ife to admit all the children after primary education.
5. Give an intensive course in English during the first year in the secondary school.
6. Let children complete the rest of secondary education normally.
7. Compare the experimental children with others primarily in terms of academic achievement, and secondarily in terms of social adjustment, enterprise and resourcefulness.

Hypothesis

It was hypothesised that:

The children will not be worse academically than the children who follow the conventional system. In addition, it was expected that they will be better adjusted, more relaxed, more enterprising and more resourceful than their counterparts.

In contrast, the overall objectives of the Project were later modified as follows:-

- (a) To develop a primary education curriculum with a strong surrender value, since primary education is terminal for many Nigerian children;
- (b) To develop materials, together with appropriate methodology, for teaching the prepared curriculum effectively;
- (c) To use the Yoruba Language as the medium of instruction throughout, in order to demonstrate that the primary instruction, when given in the child's mother tongue rather than in a second or foreign language, is more effective and meaningful;
- (d) To teach the English language effectively as a second language throughout the six years of primary education;
- (e) To evaluate the project continually with a view to determining the presence or absence of certain significant differences between the experimental and the control groups.

From the foregoing, it is clear that the Project is a Developmental Project - an evolving Project in the sense that apart from the initial objectives, other factors which were not contemplated in the original plan entered into the scheme and had to be taken care of as the Project progressed. For instance, the Project planners did not realize the extent of the inadequacy and/or inappropriateness of the existing teaching materials in the field. Initially, it was thought that mere translation or slight modification of materials would be sufficient; but as the planning progressed, it became obvious that new materials had to be developed. The Project selected five curriculum areas for the experiment:

Science
Mathematics
Social and Cultural Studies
Yoruba language arts
English as a Second Language.

Three major results were envisaged. First, the Project would make it possible to test the validity of the claim that primary education received in the mother tongue is richer and more meaningful than that received in a second language.¹²

Secondly, solution to the problems accompanying the adoption of a Nigerian Language, (such as Yoruba) as the medium of instruction would be stimulated. Thirdly, it was hoped that the experiment would suggest a solution to the perennial problem of teaching English effectively to Nigerian children.

B. Strategies of the Project

The overall design of the Project included the following:-

- (a) the selection, with the approval of the Ministry of Education of the Four Western States, of a typical primary school in Ile-Ife township to

- serve as a site for the experiment with two arms of Year I Class designated as the experimental group and a third arm as a control;
- (b) the establishment in the Institute of Education of a corps of professionals and supporting staff to serve as a Steering Committee and to work with the Primary school for the in-service training of teachers, the implementation of new methods and materials and the supervision of the Project;
 - (c) the establishment of a broader advisory committee for the Project consisting of University Lecturers and Professors from Ibadan, Lagos and Ife, as well as some teachers from primary and secondary schools in the Western State;
 - (d) the setting up of an Executive Committee, headed by the Director of the Project, to direct the finances of the Project and of all Project activities on day to day basis;
 - (e) organization of curriculum writing teams in each of the five subjects chosen by the Project for instructional purposes and comprising university teachers, primary and secondary schools' teachers and principals in the following subjects:
 - (i) Social and Cultural Studies which embrace music, art, folklore, literature, civics, geography, history etc.;
 - (ii) Science which includes health and sanitation;
 - (iii) Mathematics;
 - (iv) Yoruba language arts;
 - (v) English as a second language;
 - (f) formation of a panel of Nigerian consultants in several disciplines (partly drawn from the large advisory committee (vide (c) above) to determine technical details and strategies, and assist in coining, borrowing, translating, etc.

Steps were taken to solve the different types of problems concerning the setting up of the Project. First, a series of discussions and seminars were held involving many experts in academic, professional linguistic fields.

Understandably, Ministry of Education officials and the public at large were initially sceptical about the reasonableness of using Yoruba as a medium of primary education in the Western State. A substantial fear was that of lowering educational attainment; but by far the greater doubt was political. It was feared on the one hand that the proposal might not be in the national interest of the Federation of Nigeria as a whole as it would tend to emphasize Nigeria's language difference: and on the other that it might result in handicapping the children of the State for secondary education compared with children of other States. Eventually however, the Ministry of Education (as well as the Ife Local Education Authority) gave its full support and even allowed the Project a free hand in adapting the chosen school for the experiment.

The provision of teachers for the Project was a problem. The choice of the specialist teacher of English did not present as fundamental a problem as that of the general teachers, particularly in view of earlier remarks on teacher education in the field of Yoruba. There was also the problem of the dislocation of the Project that would be caused by sudden transfers of the Project teachers.

Eventually, it was decided that Grade Two teachers of proven interest should be employed. With the active support and co-operation of the former Western State Ministry of Education, the Local School Board and the local Branch of the Inspectorate Division of the Ministry of Education, the right calibre of teachers were selected and the Ministry guaranteed their continuity of service in that school.

However, there was an initial actual classroom problem. While the teacher of English chosen for the Project was found most stimulating to the pupils, the teachers selected for Yoruba were ill-equipped for conducting interesting lessons. The Project immediately ran into the danger of being sabotaged as the few English lessons were overshadowing the other lessons conducted in Yoruba (including storytelling and singing).

The experience emphasized the necessity for an initial training of high quality personnel - teachers, course designers, textbook writers, Inspectors of Education, teacher trainers — for a successful wide-scale adoption of a Nigerian Language as the medium of education.

There was the initial problem of setting up the teaching arm of the Project. The choice of the place was not an easy task, particularly with reference to the location of the control group. Some of the scholars felt that the same school was ideal for the two, while others felt that different schools should be used. Even the optimum size of the Project for valid results was not an easy choice. Eventually, St. Stephen's 'A' primary school at Modakeke, Ile-Ife — a three-arm school which later developed into a five-arm school, was chosen. Two of the three arms were designated experimental classes, and the third the control. In the experimental classes, all subjects of the new curriculum, except English, were taught in Yoruba; and the English language was taught as a school subject by a specialist teacher of English. But in the control class, the new curriculum was taught under the existing language policy of using Yoruba in the first three years and English in the last three years as the medium of instruction.

The next important aspect of the actual setting up of the teaching arms of the Project was the enrolment and classification of children. It was decided that the children should be enrolled in the normal manner for the three arms. It was eventually decided that there should be regular intake of two new experimental and one control class in Primary I each year and no fresh intake in the upper classes in the succee-

ding years. Thus the pupil population in the experimental and control classes was spread out by class level and year as shown below:

TABLE 2
Project Annual Pupil Intake: St. Stephen's 'A' Primary School in
Ile-Ife Town:- 1970 — 1975 (Year 1 only)

Groups	1970	1971	1972	1973	1974	1975
Experimental A and B	80	80	80	80	80	80
Control C	40	40	40	40	40	40

In 1973, the Project decided to extend the experiment to rural and semi-urban areas of the former Western State. To this end, ten schools known as Proliferation Schools were included. A total of 700 children were enrolled in Year 1 of that year. Whereas provision was made for the Pilot School to admit a fresh intake into primary one every year for six years, the Proliferation Schools admitted only one set of pupils and carried them through the six years of primary education.

TABLE 3
Pupil Population at the Proliferation Schools (1973)

	<i>No. of Pupils admitted to Year I in 1973</i>
1. N.U.D. Muroko Road, Ilesa (Experimental)	70 (two arms)
2. G.T.T.C. Demonstration School, Ilesa "	70 "
3. Methodist School, Ike-Omi Osu - (Control)	70 "
4. U.M.C. Demonstration School, Ibadan (Exp)	70 "
5. L.A. School, Idiope, Oyo (Experimental)	70 "
6. St. Andrew's College (Demonstration School, Oyo (Control)	70 "
7. D.C. School Elemo, Iwo (Control)	70 "
8. Baptist College Demonstration School, Iwo (Experimental)	70 "
9. D.C. Araromi School, Iwo (Experimental)	70 "
10. St. Philips Anglican School, Ilaro Ifo (Experi- mental)	70 "
Total	<u>700</u>

Funding by Supportive Agencies

1. The Ford Foundation:

As mentioned earlier, in the latter part of 1968, the Director of the Institute of Education, University of Ife, held discussions with the Ford Foundation representative in Nigeria and sought financial support for a 'Six Year Primary Education in Yoruba.' The Foundation promised support and requested a detailed proposal including financial estimates. The first financial request was for one hundred thousand Naira (₦100,000 or US \$170,000) for the first two years of the project. The Foundation later made other grants totalling over Two hundred and fifty thousand US dollars (\$250,000) between 1970 and 1976.

In addition to the direct financial support, the Foundation at the request of the Institute assigned a renowned linguistics expert in the person of Mrs Marjori Shaplin to work with the Project on a part-time basis for a period of three years (1969 - 1972). The Foundation also assigned to the Project a Nigerian specialist teacher of English at its own expense for two years. It also assisted the Project in the ordering of certain materials and equipment needed by the Project. For example Yoruba Typewriters, Scanning machines, and bold letter typewriters for producing materials for beginner readers at the expense of the Foundation. Two members of the Institute were sponsored for higher degrees in the United States, and two teams of teachers engaged at the main Project school were also sponsored for educational visits to the United States in 1974 and 1976.

2. Ministry of Education

The former Western State Ministry of Education later known as the Oyo State Ministry of Education after 1975, was involved in the Project right from its inception and made the following contributions:

- (i) granted permission for the use of state schools for the Project;
- (ii) provided and paid the salaries of teachers assigned to the Project;
- (iii) allowed teachers to remain on the Project throughout the duration of the experiment;
- (iv) recognized the Project as a duty post when the teachers on the Project were qualified for such posting;
- (v) allowed its representatives to participate in the writing and the evaluation workshops; and
- (vi) periodically sent a team of inspectors to the school to evaluate the Project.

3. Universities

The staff of three Federal Universities namely, the Universities of Ife, Ibadan, and Lagos participated actively in the Project right from its inception.

(a) *The University of Ife*

The Six Year Primary Project was based at the Institute of Education, University of Ife where it was initiated, organized and administered on the day to day basis. The former Director of the Institute, Professor A. Babs Fafunwa conceived the Project and sold the ideas to the Ford Foundation for funding. The former Vice-Chancellor of Ife, the late Professor H.A. Oluwasanmi gave his instant approval for the Project and supported the Institute's application to the Ford Foundation for financial assistance.

The University of Ife made the following substantial contributions to the success of the Project:

(i) *Staffing*

The University contributed nine staff members to the Project: The Director of the Institute who directed the Project; a Project-co-ordinator; a specialist English teacher first assigned to the Project by the Ford Foundation and later absorbed by the university; a mathematics co-ordinator; a Yoruba co-ordinator; a fine art specialist and three grade II teachers attached to the institute. In addition, a number of Faculty and Institute staff as well as some academic staff from the Faculties of Arts and Science participated in the Project on a voluntary basis.

(ii) *Office Space*

The University allowed the Institute of Education to use part of its office and storage space for the Project and its facilities for the annual writing workshops.

(iii) *Finance*

At the later stage of the Project when the Ford Foundation funding ceased, the university came to the aid of the Project by making ₦100,000 available.

The Project was not limited to the University of Ife Staff alone; interested educators and language specialists from the Universities of Ibadan and Lagos also participated in the Project as the list in the Appendix 1 shows. As was the case with the staff of the Universities of Ife, Ibadan and Lagos, participants attended many of

the four to six-week long vacation writing workshops and contributed immensely to the development of teaching materials and aids for the Six Year Primary Education Project. Some of them also served on the advisory panel as shown in Appendix 1

- (b) The University of Ibadan's Educational Evaluation Centre headed by Professor E.A. Yoloye assumed leadership for continuous evaluation of the Project from the second year of the Project till the end of it even though two outside evaluators (Tucker & Cziko) in association with a University of Ife staff (Ojerinde) conducted special evaluation on the Project Children between 1971 and 1982.

It is also gratifying to note that the Universities, particularly Ibadan, had encouraged many of their post-graduate students in education to conduct M.A. and Ph.D. research projects on certain aspects of the Six Year Primary Project. For example, University of Ibadan, Institute of Education's Post-Graduate students wrote their M.Ed. dissertation and Ph.D. (one number) on academic achievements and emotional adjustment of the Project children between 1979 and 1980. Two of the Project Staff at the University of Ife received their Ph.D. degrees in areas related to the Project, viz. Ojerinde (1979) and Macaulay (1982). Numerous papers were presented at National and International Conferences on the Six Year Primary Project by University of Ife, Lagos and Ibadan staff at various times between 1970 and 1980 (See Bibliography - for a partial list).

- (c) Representatives, individuals and delegates from Nigerian Institutions of higher learning as well as those from foreign universities visited the Project and held discussions with the Project organizers between 1972 and 1982. Two scholars who were post graduate students of the University of Illinois, U.S.A. were sponsored by UNESCO for two months with the Project at Ife to collect material on mother-tongue education. The two have since completed their Ph.D. studies and returned to Mali.
- (d) It can be safely said that the Six Year Primary Project is one of the very few national Projects that promoted inter-university collaboration among some Nigerian universities between 1970 and 1980's.

4. Parents' Contribution

Two things compelled an early contact with the parents of the children. The first was the stiff opposition to the Project reported by some headmasters. They reported

that many parents - the majority of whom were highly educated, had threatened to remove their children from the school if they were put in 'Project' classes. Their opposition was due to the erroneous ideas that they had about the Project. They feared that the children in the Project class would not be as proficient in English as their counterparts in the 'normal' classes and as a result these children might miss selection to the secondary schools or fail to do well in the school if by chance they were selected.

The attitude of the parents could be summed up in the words of one of the Project teachers as follows:

'The news of the special class was met with mixed feelings. Many literate but ignorant parents doubted the success of the experiment and wanted to withdraw their children. They feared later progress of the children in this experimental class. They put such questions as: Is the teaching of science in primary one not a bad experiment? How could a subject meant for post-primary course be successfully taught in primary one without confusing the children from the initial stage? How would you express mathematical terms in Yoruba? In which secondary school will the pupils continue this system of education? How will such children compete successfully with their counterparts who are brought up in the traditional system, is *Matimatiki* for mathematics and *Sayensi* for science not ridiculous?' Such questions were patiently explained. For example, it was explained that the science syllabus for primary one concentrates on things that would interest the children, such as playing with sand and water and colour producing materials. And it is interesting to note that pupils were always happy when it was time for science. They never liked to miss the lesson! The novelty and the play-method adopted made it interesting and it became the children's favourite subject. It was also explained that the organizers of the course were not only mature and experienced scholars, but also devoted parents. They were therefore attempting to satisfy the needs of the children, including their post primary education.

Again, it was explained that the use of words such as *Matimatiki* and *Sayensi* should not appear embarrassing or ridiculous because once they are in used, they would become part of the Yoruba language. It is recalled that words such as *raisi* (rice), '*leedi*' (lead), '*kampeni*' (campaign) have now become Yoruba words.

There was also the need to direct parents as to the type of help they could offer to their children which would not be in conflict with the methods being used in school, especially in English and Mathematics. Serious attempts were therefore made to explain the objectives of the Project to parents. In this regard, the teachers of the Project deserve great commendation. Several time, the teachers arranged for meetings with the parents in order to explain the Project. Parents were also invited to school to see the children at work. The work done by the children was also displayed at Parent-Teacher meetings. The fears of the parents were allayed partly by the explanations given at the meetings and partly by their children's performances in and outside the classroom.

Although at the inception, there were threats of withdrawal of children from Project classes. By the end of the first year, the class lost only two pupils, one by transfer of parents to another town and the other by death. The protesting parents later became great advocates of the Project. For example, the illiterate ones who never dreamt of being in a position to help their children with their school home work, since they themselves did not attend any school, found themselves helping their children in Social and Cultural Studies, Science and even in Mathematics in a small way, since the medium of teaching and learning is Yoruba.

Parents also contributed some visual aids in the form of traditional artifacts — utensils, drums, musical instruments etc. for the teaching of social and cultural studies and science. The Project children on the other hand were encouraged to ask their parents to teach them folklore, stories, songs and proverbs and to enquire from their elders how various festivals and certain cultural ceremonies were performed, e.g. naming ceremonies, marriage ceremonies, funeral rites etc. Both the Project teachers and the Project organizers reduced most of these into writing and recorded many more on tape.

5. Local Resource Persons

One of the important lessons learnt by the Project organizers was the invaluable contribution that could be made by non-literate people in the rural areas. The rural community tends to retain the original language patterns and concepts as compared with their educated counterparts. Many of the original cultural and social aspects of a Nigerian language are generally retained by the rural communities in contrast to speakers in urban areas.

At the very inception of the Project, the organizers realized the need to consult the old and the wise in the village communities for lexis, phrases, concepts and cultural practices not commonly used in urban areas. Teachers, pupils, panel writers and the Project organizers paid extensive visits and made contact with the village elders who are experts in their own right. Often times, certain concepts in science, or mathematics or social and cultural studies in particular defied the Project workers' understanding and in many cases, the rural dwellers were familiar with such concepts in Yoruba. It therefore became a policy of the Project not to coin, substitute or translate a concept until the rural sages had been consulted. As a result of this, materials were greatly enriched.

6. Professor and Mrs Marjorie Shaplin

One individual consultant who needs special mention is the late Mrs Marjorie Shaplin, a specialist in linguistics at the University of Washington, Missouri, U.S.A. and her husband, the late Professor J.T. Shaplin who visited Nigeria in 1968 as Ford

Foundation Consultants. It was during the course of their visit that Mrs Shaplin learnt of the Project proposal and she responded very positively to it. The acceptance of the proposal for Ford Foundation funding was largely due to her support and strong representation to the Foundation. The Ford Foundation later employed her as consultant to the Project. Mrs Shaplin had more than a passing consultant's interest in the Project; she became personally involved by offering her personal assistance to the Project even after she ceased to be a Foundation Consultant.

During her short visits to the Project at Ife, she participated actively and interacted freely and intimately with the Project/teaching staff. She ran on-the-job training courses for Project teachers and assisted in programming the three educational tours arranged for the Project teachers between 1974 and 1976. She also assisted in guiding and counselling a senior member of the Project to complete her masters' degree at her university in Missouri, U.S.A. and served as one of the same staff's advisers when she was working on her Ph.D. at the University of Ibadan between 1977 and 1981. Mrs Marjorie Shaplin freely and fully gave her services to the Project and spared no pains in assisting the organizers in their self-appointed task. The Project will always remember her invaluable contributions.

Notes

12. Ibid.

PART TWO

Implementation

III

Curriculum Development

Strategies For Curriculum Development

As indicated earlier, the Project assembled various experts from the Ministry of Education, Colleges of Education, Grade Two Teacher Training Colleges, the Primary Schools and the Universities. Among these experts were professional evaluators. These various experts were from the Yoruba speaking communities of the country. In this connection, three Universities were involved: University of Lagos, University of Ibadan and University of Ife. The Ministry of Education was that of the former Western State which covered present-day Ogun, Ondo and Oyo States. Four Grade Two Teacher Training Colleges were involved and they were represented in almost all activities concerned with curriculum work. Out of this large body, a curriculum development team was constituted. The team met to consider the proposals for curriculum development. The aims and objectives of the Project were reviewed and the following decisions were arrived at:

- (1) The Project was to organize writing workshops for the development and evaluation of curriculum materials.
- (2) The Project was to examine existing curriculum materials in all the 5 teaching subjects identified, for suitability and where found unsuitable, new materials were to be produced.
- (3) The Project was to develop materials with appropriate methodology for teaching and learning the prepared curriculum effectively.
- (4) Curriculum materials were to be developed in both Yoruba and English.
- (5) As curriculum materials were developed, they were to be tested in the classroom by the classroom teachers and returned with comments and criticism for further revision at the workshop.
- (6) The main components of the curriculum materials were to be:
 - (a) Comprehensive syllabus for each subject
 - (b) Comprehensive Schemes of work for each subject
 - (c) Pupil's Texts

- (d) Pupil's Workbooks
- (e) Supplementary Readers for Pupils
- (f) Teacher's Guides
- (g) Language Medium Servicing Texts
- (h) Visual Aids for each of the subject areas
- (i) Examination Data Bank.

Initial Stages of Curriculum Development

The Project was formally launched in January 1970 with the admission of three arms of class I with two Experimental classes and one control class. At the commencement of classes, the Project organizers were still busy working out the strategies of implementation. The first workshop could not be held before the long vacation period because the team members were all engaged with their regular assignments at their various institutions.

The first workshop ran from 15th August to 12th September, 1970 and began with the attempt to find solutions to the various problems regarding the curriculum, the syllabus and teaching materials. Its specific objectives were:

- (a) to produce a coherent and comprehensive primary school programme capable of providing a sound educational foundation for well-integrated future citizens of the Western State and of Nigeria in this technological and scientific age;
- (b) to produce teaching materials, teachers' guides as well as pupils' books necessary for teaching the programme during the first two years of the Project;
- (c) to evaluate the working of the Project so far and make necessary suggestions for improvement.

Thus, in view of the objectives set for the workshop and what it actually achieved, it could now in retrospect be seen as initiating in Nigeria a revolution in curriculum development.

It is also significant to note that it was from this workshop that these three very significant recommendations concerning the working of the Project were made:

- (a) In view of the fact that the major issue of the enquiry in the Project is the medium of instruction, both the experimental class and control class should follow the same programme using identical materials.
- (b) As a result of the first recommendation (and also for the purposes of serving as examples to non-Yoruba speaking Africans who might like to refer to the experience of the Project), the syllabus, schemes of work and (where possible or necessary) even the teaching materials should be produced in both Yoruba and English.

- (c) For the uniformity of orthographic conventions to be followed, the Yoruba versions of all materials produced should be edited within a single framework.

Undoubtedly, those were far-reaching issues of curriculum development. The third point is particularly significant for the contribution of the Project towards the revolution and modernization of the orthography of modern Yoruba.

Until the full curriculum was developed and the instructional materials in its support had been provided, the annual Writing Workshop continued to take place. Indeed some supplementary shorter Writing Workshops also took place. These Workshops turned out to be not only channels for producing instructional materials but also for promoting the effective and useful flow of information among all those involved or interested in the activities of the Project. In addition, the Workshops provided on-the-job training for the teachers and opportunities for overall evaluation of all activities and products of the Project. For example, teachers became more involved in the discussion of the grass root philosophy and the organic structure of the Project. Similarly, some principles of educational practice emerged from the interactions among the various categories of participants during the workshops. The decision to write materials for two years together during each Workshop could be cited for illustration; for it was based on two major considerations:

- (a) that it is a sound principle to prepare materials ahead of the year of instruction so as to give teachers ample time to study and understand the new instructional materials; and
- (b) that such advance preparation afforded breathing space for making necessary changes and adjustments.

Certainly, these are sound principles that have to be applied in any meaningful process of curriculum work, particularly between the stage of development and the stage of implementation. The Project presented some challenges of development in respect of the languages. In contrast, the challenge in respect of the English Language was towards solving probable problems that the pupils who served as the lead-group of the Project might face in their mastery and use of the English Language in the future, beginning with secondary education.

A. The Yoruba Language Writing Panel

Composition of the Yoruba Writing Panel

As with the other subject areas, members of the writing panel were selected from the Universities, teacher training colleges, the classroom and the local community. In this case, special attention was given to the selection of specialists who had good knowledge and control of the Yoruba language. The Project organizers were conscious of the new status being created for the Yoruba language by virtue of its use as the medium of instruction for the entire period of six years of primary education.

Review of the Yoruba Syllabus

The existing syllabus was found to be very narrow and to a large extent lessons revolved round the Yoruba readers which could not be considered as language courses. Extensive work therefore went into the design of a new and comprehensive syllabus which incorporated the different units of Yoruba language arts. This catered for the extensive development of the four basic language skills of listening, speaking, reading and writing, while providing for the learning of grammar and literature. The syllabus took cognizance of the fact that Yoruba would be used as the vehicle of learning for six years and would be developed as a subject for at least the same length of time.

To this end, it became necessary for all the writing panels except the English writing panel, to meet to discuss the syllabus content of the other subject areas - Mathematics, Science and Social and Cultural Studies, in relation to the Yoruba language syllabus. General guidelines and principles of development were agreed upon and where necessary, specific items or units were included in the Yoruba language syllabus to enhance work done in the other subject areas, especially in Social and Cultural Studies. Care was taken to achieve a measure of integration in all the syllabuses since the medium of instruction was going to be Yoruba, thus creating a channel for better integrated and more cohesive learning.

Writing Procedure

The Yoruba medium content writers worked closely together not only on the syllabuses but also at every stage of the curriculum development, since every major linguistic decision had to be taken together. These stages of curriculum development saw a great deal of the internal development of the Yoruba language. This was most obvious at the lexical level where new everyday-items, new technical terminologies and other items of language had to be found to meet the educational demands. In this connection, the Yoruba language can be seen to have employed all the three methods that languages usually exploit for expanding their lexical inventory to meet new demands, namely,

- (a) the creation of new items through the exploitation of morphemic and phonemic resources of the language,
- (b) a change in the totality of the preferential coverage in existing items, and
- (c) the borrowing of items from other languages.

In this way, the Project has demonstrated how the Yoruba language can overcome such local deficiency as may be found in any language which education may wish to adopt as a medium of instruction. Similarly, within these processes, principles of lexical expansion to meet specific fundamental needs of various disciplines such as Mathematics and Science were also evolved. These principles will be explained as each subject area is presented in subsequent sections of this book.

The Yoruba Language Materials

For the first time in the history of Yoruba language teaching at the primary level, learning and teaching texts were developed extensively and in consonance with the units of learning recommended in the syllabus. A total of twenty-five titles were developed for the promotion of Yoruba language skills. These covered the following areas:

- (a) Reading Readiness Texts;
- (b) Pupils' Course Books (Years 1 to 6);
- (c) Teachers' Guides (Years 1 to 6);
- (d) Work Books for Pupils;
- (e) Supplementary Readers;
- (f) Special Comprehension Texts.

(a) *Reading Readiness Texts*

These were in three parts and were aimed at developing the readiness exercises of:

- (i) visual perception and discrimination;
- (ii) auditory perception and discrimination;
- (iii) concept formation;
- (iv) left to right progression;
- (v) space awareness;
- (vi) logical sequence;
- (vii) sensory awareness.

(b) *The Pupils' Course Books (Years 1-6)*

These contained reading passages and language exercises, including grammar and composition. The contents were carefully sequenced and special effort was made to ensure that all concepts developed were reinforced and expanded. Since this was the pupils' mother tongue, various relevant topics were incorporated in their course readers from the other subjects areas, such as Mathematics and Science. This would not have been easy or even possible with the development of English Language medium texts because of the degree of the complex language structures which might be required.

However, for the experimental group, some effort was made by the English team to provide simple English supplementary readers described as servicing texts, which contained as much as was possible, of additional new concepts which needed reinforcing. By and large, the freedom in text development and learning which was experienced by the writers, the teachers and the learners was tremendous.

(c) *Teachers' Guides (Years 1-6)*

These Texts were designed to guide the teachers in their presentation of the lessons. The scheme of work included in the Guides taught the teachers to present their lessons in the correct sequence with the appropriate materials and methods.

Hitherto, teachers had not been using carefully structured lesson plans for the teaching of Yoruba as a subject because teaching of the mother tongue was taken for granted. Rather, most of the lesson periods in the past were spent on story-telling with short reading spells. As a result of this background, during the workshop, the writing panel, whose members were also all educators invited the classroom teachers for training in the use of the materials being developed.

As learning units were written, teachers were taught to prepare visual aids for teaching. The teaching processes were also explained to them for effective classroom interaction. Above all, teachers were taught to prepare their lesson notes in Yoruba - a process that was hitherto unheard of. They had some difficulty doing this in the beginning but as they continued in the system, they learned and succeeded to the point where they could serve as resource persons in this and other capacities.

(d) *Work Books*

These contained language exercises mainly for reinforcement. They were designed to cover the items in the course books which needed to be reinforced and they were such that children could work on their own.

(e) *Supplementary Readers*

Supplementary readers were developed to stimulate the pupils' interest in reading. This was considered highly necessary because most of the pupils belonged to an environment that is predominantly oral. Contents were related to the children's interest and life situations. They were meant to be read and enjoyed.

(f) *Special Comprehension Texts*

These are additional reading materials which were also related to the children's interest. Comprehension exercises were included in this set of readers to train the readers and help them to develop a thorough understanding of the passages they read. With this, a distinction was made between reading for fun and reading to learn.

Table 4 Yoruba Texts and the purposes for which they were developed

<i>Titles</i>	<i>Primary Classes</i>	<i>Purpose for which developed</i>
1 Mo o	I	Reading Readiness
2 Wo o	II	Reading Readiness
3 Igbaradi fun Iwe Kika	I	Reading Readiness
4 Ojo, Ebe, ati Oke	I	Reader
5 Iwe Kika I	I	Course Reader
6 Iwe Kika II	II	Course Reader
7 Iwe Idaraya	II	Work Book
8 Iwe Akakun	II	Supplementary Reader
9 Iwe Kika (Atunse Keji)	II	Course Reader
10 Omokehin	III	Supplementary Reader
11 Awon Asa Iwe Kiko	III	Learning to Write
12 Bola Gbalude	III	Supplementary Reader
13 Akaye ati Akoye	III	Comprehension Text
14 Onilara Ko ri Ere Je	III	Supplementary Reader
15 Ijapa Alakogbagbe	IV	Supplementary Reader
16 Ile La a wo	IV	Supplementary Reader
17 Awon Asa Iwe Kiko	IV	Learning to Write
18 Aye N lo (Akamo)	IV-V	Comprehension Text
19 Iye O (Akamo)	IV-V	Comprehension Text
20 Ere Aladun (Iwe Akakun 4)	IV	Supplementary Reader
21 Aba Ati Ilana Fun Kiko		
Yoruba fun Odun 1 — 6	I—V	Teacher's Guides 1—6
22 Iwe Kika 5	V	Course Text
23 Alabi (Akakun 5 fun Akeko)	V	Teacher's Resource Book
24 Iwe Kika Aladun	VI	Supplementary Reader
25 Iwe Kika Pelu Idaraya		Readers and Comprehension with Language Exercises

Yoruba Syllabuses

1. Ilana fun Kiko Yoruba 1 — 6
2. Yoruba Syllabus 1 — 6
3. Eto Ilana Eko fun Odun Kini
4. " " " " " Keji
5. " " " " " Keta
6. " " " " " Kerin
7. " " " " " Karun

B. MATIMATIKI: (Mathematics) Writing Panel

1. Composition of the Mathematics Panel

The Mathematics panel comprised university lecturers, a principal of a teacher training college and tutors handling subject matter and methods in teacher training colleges and later, some secondary school principals. In attendance at most of the sessions of the panel were primary school teachers from the Project Schools.

2. Review of Existing Materials

Initially the panel conducted a thorough review of the existing mathematics textbooks and reached the conclusion that although the Entebbe book series was the closest to what the panel would consider adequate because of the dominance of its approach by the Set Theory, it could not be used without modification, restructuring etc.

It decided that the format of Entebbe series should be used as it catered more adequately for the inadequacy of professional training which the teacher may have. For instance, in introducing a new lesson, the materials to be used are listed and the steps the teacher has to take are explained not in a skeletal form but in detail.

A syllabus and a scheme of work covering each year of the six year primary school course were prepared. In deciding the contents for each book, the panel considered only the desirable goal for the year and not necessarily the requirements of the syllabus and scheme of work prepared by the Ministry of Education.

This decision - of not following the Government syllabus rigidly - gave rise to one of the objections raised against the series. The reply to the objection was that the series as a whole not only covers the government syllabus but also offers the pupils an enhanced programme.

3. Writing Procedure

In writing the books, suggestions were constantly sought and eagerly accepted from the classroom teachers who were always invited to the workshops. As a matter of course, during each year's writing workshop, and before embarking on the ensuing year's work, a thorough review of the materials used in the previous year was carried out. The materials were then rewritten, if necessary, in the light of suggestions made by the Project teachers. The result was that, by and large, most of the examples in the pupils' workbooks in their second year of existence had not **only gone through a thorough revision** but had also been tested in an actual classroom situation and found suitable.

Each writer selected (or was given) a topic he or she was interested in developing with the understanding that the same person would be responsible for writing on that topic for all the books (at least for the first three years) following the schemes already agreed upon at the beginning of the exercise.

4. Initial Problems and Solutions

In writing the Yoruba books, the writers were faced with three initial problems - of vocabulary, of reconciling (or synchronizing) the Yoruba numeration system with the Arabic system and of choosing one name out of the many names a number could be called which would facilitate computation (e.g. *eewa meji ati eeja* - is a better name for the numeral 26 than *eerindinlogbon*).

(a) Vocabulary

Vocabulary - In the choice of words, the guiding principle was that wherever there was a word in Yoruba that adequately or even vaguely described or connoted a concept, that word was preferred to any other. Where a decision had to be made between direct translation or coinage, the panel had the services of the linguistic experts at its disposal. If coinage was recommended, then the task of finding a suitable word (or words) became the joint responsibility of the panel and the linguistic experts.

Apart from instances where coinage or borrowing became necessary, the words used were words with which the child was already familiar. When, therefore, a special meaning in a mathematical context was given to the child, it would not be difficult for him to grasp. For example, we used the word *akojopo* for 'set'. Since the child has an idea of the situation in which we can use the word to describe the new meaning it should not be difficult for him to grasp.

Mention could be made here of some words with similar treatment e.g. *ege*, *ila*, *iyokuro*, *ayorisi*, *isodipupo*. The meaning of *ege* in normal usage is a fraction; a portion or a part cut off. The pupils should therefore have little or no problem in grasping the mathematical meaning of *ege* - *ila* as a portion or part of a line. Similarly *isodipupo* means the act of increasing. To use it to describe multiplication is not far-fetched. Likewise as *ebu* is a part of, it is not out of tune to use it to connote fraction.

Where two Yoruba words are inter-changeably used in ordinary speech, care was taken to ascribe specific related meaning to each. For example '*iropo*' is restricted to 'addition' and '*aropo*' to 'sum'; that is, the outcome of addition of numbers. There are however certain words

or concepts for which Yoruba words are not readily available. These words were absorbed into Yoruba -the Yoruba form being decided by the panel and the experts. Examples are 'pointi' (point), 'angu' (angle) 'paraleli' (parallel) and 'figo' (figure).

(b) *Reconciling Yoruba and Arabic Numeration System*

The fact that the Yoruba system of numeration does not conform to a single pattern created a problem for the writers. We count in ones up to ten; in twenties (*ogoogun*) up to 200 (*igba*); in 200's (*igbiigba*) up to 2000 (*egbeegbaa*); and up to 20,000 (*oke kan*). On the other hand, the numeration system universally adopted goes beyond the 20,000 grouping.

This problem as well as that of synchronizing the system with the decimal system was tackled as described below. In the Arabic system, the following places are provided for:

Place for one	
" "	tens
" "	hundreds
" "	thousands
" "	ten thousands
" "	hundred thousands
" "	Millions.

In Yoruba, we already have *eyo*, *eewa*, *ogorun* and *egberun*. Numbers are written as multiples of these. Thus 546 is *Ogorun 5 eewa 4 eyo 6*. To provide other places, we proceed as follows: Since 100 (*ogorun*) is *ogun* in 5 places (*ogun marun* contracted to *ogorun* and 1000 is *igba* in 5 places (*igba marun* contracted to *egberun*), it follows that 10,000 should bear the contracted form of 2000 (*egbaa*) in 5 places, that is *egbaa marun* or *egbaaarun*. In the same way 100,000 should bear 20,000 (*oke*) in 5 places -that is *Oke marun* or *okerun*.

Opinion is divided as to what name to give a million as there is no special name for 200,000. Two suggestions have been made-using the Yoruba version of a million - *millionu* or the word *okerun mewa* contracted to *okerunwa*. The first one *millionu* - appears to have a wider acceptance.

By using the device outlined above the Yoruba numeration is decimalized:

1	0	0	0	0	0	0
Milionu (Okerunwa)	Okerun	Egbaaarun	Egberun	Ogorun	Eewa	Eyo

The device has thus made counting beyond the former limit of 'Oke' possible and pushes forward by several thousands the upper counting limit of 'oke aimoye' - too numerous to count.

(c) *Choosing a Name (for a number) that would make Calculation Easy*

Yoruba names are arrived at by addition to and subtraction from the stem. For example 56 is four subtracted from three twenties (*merin-din-logota*) and 54 is four added to three twenties minus ten (*merinleladota*). Apart from being very confusing to the pupils, it also makes oral mental drill in numbers very difficult.

The panel decided to use the expanded form of a numeral to name it. Thus, 12 was called *ewa kan ati eeji* (instead of *eejila*); 56 was given the name *eewa marun ati eeфа* (instead of *eerindinlogota* or *aadota ati eeфа*). The panel was of the view that the current names really belong to the realm of Social and Cultural Studies.

5. Innovations in Methodological Approach

(a) *The Teachers' Guide*

The panel also produced teachers' guides. In the teacher's guide, better and more detailed suggestions are made. For example, where existing teachers' guide would simply direct the teacher to 'explain a word', the Project Mathematics Guide makes the 'explanation' in order to ensure that the teacher, however deep rooted his distaste for Mathematics may be, and however scanty or shallow his knowledge of mathematical concepts, can still pass the correct information to the pupils.

The Teachers' Guide is also written in such a way that the learning of Mathematics (by the pupils) is geared, not to an automatic response but to an adventure in discovery. For as has been said above, the teacher is expected to lead the pupils (and the way he should proceed is clearly described) to find the explanation themselves through activities they are led to engage in - leaving only the polishing of the rough edges of the explanation (or definition) to the teacher to do.

The Teachers' Guide also provides a variety of experiences in introducing a concept, and a problem is often solved in many different ways, for the purpose of 'disestablishing' the 'rule kingdom' firmly established in the minds of many teachers who are but too eager to impress on their pupils the grave and serious consequences attendant on the non compliance with the rules. In other words, the methodological approach is structure-oriented rather than rule-oriented.

(b) *Teaching of Numbers and Numerals*

Teaching a particular number involves the concept and the name of the number as well as the recognition and the writing of the symbol (numeral) standing for the number.

By the time a child starts schools, he already has an idea of numbers 1 to 10 and their names in the mother-tongue. The teacher then proceeds to teach numbers associating the symbols (numerals) with the names by writing the numerals down and saying the name of the number in English and then in the mother tongue. The children then chorus them after him as follows:

1 — (one) — *ookan*
2 — (two) — *eeji*
3 — (three) — *eeta etc.*

This method is not only confusing but also time consuming because the pupils are being forced to go through three processes — first, recognition of the number, second, association of the number and its name in English, and third, association of the number and its name in the mother tongue (Yoruba). Furthermore, pupils are also forced to do these three simultaneously.

In order to conform with the policy laid down by the Project that instruction be given entirely in the mother tongue, the panel directed that recognition and naming of numerals be taught in one process as follows:

1 — *ookan*
2 — *eeji*
3 — *eeta*

The numeral is written down and the name of the number it stands for is called out in the mother tongue (Yoruba) only.

- (i) Critics of this method while conceding to the claim that it is less confusing to the child than the one they advocated point to the difficulty the pupil might encounter in shifting from the mother-tongue to English in the secondary school. It may be mentioned in passing that this fear of difficulty in language switch was not confined to Mathematics alone; it was also expressed in connection with the other subject areas.
- (ii) That the difficulty encountered in the change over is exaggerated can be seen from two other points. Firstly, the language of mathematics consists in the main, of signs and symbols which are used by Mathematicians no matter what language they speak. Secondly, it may not be difficult to acquire a working knowledge of a new language at the stage the change over is to take place.
- (iii) Two practical measures were taken by the panel to facilitate the pupils' achievement. One is that new names were introduced in Primary III for concepts previously learnt. In most cases, the new names are the Yoruba versions of the English word (or words).

They are terms or concepts which pupils frequently come across in their study of Mathematics. Examples are:-

Fraction	— <i>eebu</i> in Primary I and II <i>Furakison</i> in III etc
Factor	— <i>Omo nomba</i> in Primary I & II <i>Fakito</i> in Primary III etc.
Multiple	— <i>iyé nombá</i> in I and II <i>molitipu</i> in III etc.
Set	— <i>akojopo</i> in I & II <i>seti</i> in III etc.

- (iv) The other step taken was that the English panel was given a list of the concepts with related lexical items which were taught and these were incorporated in the English books for the pupils. It was ensured that the words were introduced in English lessons only after the concepts have been learnt in Mathematics.
- (v) For example, after the pupils have been taught numeration - number names, numerals and ordering of numbers in Yoruba, they later read 'I can count,' in their English class. The result is that although they have not been taught one, two, three etc, in their Mathematics lesson, they know what these words mean.
- (vi) In all of the measures described above, the panel was aware that the most important stage of the child's education is the primary school level. For there the foundation is laid. If a strong foundation is laid, then the building of the superstructure is easy. If the child has a good grasp of mathematics at the primary school level, and acquires the techniques of looking at situations which have a mathematical setting in the right way whatever language he is to continue learning his mathematics in would not seriously affect his achievement.

6. Textbooks and Workbooks

The panel examined the desirability or otherwise of preparing a workbook in addition to the pupil's textbook; and decided in favour of a separate workbook as such an arrangement would enable at least more than one set of pupils to use the pupil's textbook.

The panel also felt that the need of the pupils **would be** more adequately met by providing places for pupil's work in the textbook and that this could be augmented with a 2B exercise book. It was hoped that the pupils would be asked to use lead-pencils in writing down answers to the sum and problems in the textbook and that by carefully erasing these answers, the same textbooks could be used again.

In actual practice these hopes were not realised for two reasons. In the first place, many of the pupils did not use lead pencils. Secondly, those who used pencils wrote so heavily that the impression could still be read after the erasure, thus making the textbook less useful to the next generation. The inexpensiveness of the material used for the textbook did make getting fresh copies for each set of pupils a less expensive undertaking. It was however realised at that stage that the process would have to be re-examined if the textbook were to be published with colours and more permanent and costlier material.

Between 1970 and 1975, the Mathematics panel met every summer for 4 to 6 weeks and followed the pattern laid down during the first meeting -writing, re-writing, classroom trials and feedbacks. At the end of the exercises, the panel produced:

- (a) pupils' texts
- (b) teachers' guides and
- (c) pupils' workbooks as listed below.

Table 5: Some examples of Mathematical words coined, borrowed, translated, invented, etc. to facilitate learning of *matimatiki* in Yoruba

<i>English Item</i>	<i>Yoruba Item</i>	<i>Method</i>
1. addition	<i>iropo (aropo)</i>	coinage
2. subtraction	<i>iyokuro</i>	coinage
3. multiplication	<i>isodipupo</i>	coinage
4. division	<i>pipin</i>	coinage
5. length	<i>oro</i>	change in coverage
6. breadth	<i>ibu</i>	change in coverage
7. equality	<i>idogba</i>	change in coverage
8. inequality	<i>aidogba</i>	change in coverage
9. set	<i>akojopo</i>	coinage
10. sub-set	<i>akojopo kekere</i>	coinage plus translation
11. number	<i>nomba</i>	borrowing
12. figure (numerical)	<i>ami nomba</i>	borrowing + translation
13. figure (geometrical)	<i>figo</i>	borrowing
14. unit (digit)	<i>eyo-eyo</i>	coinage
15. unit (division)	<i>isori</i>	coinage
16. ten (place of position)	<i>idi</i>	change in coverage
17. member (of a set)	<i>omo-egbe</i>	translation
18. empty set	<i>akojopo-ofifo</i>	coinage + translation
19. digit	<i>digiiti</i>	borrowing
20. line	<i>ila</i>	change in coverage
21. mathematics	<i>matimatiki</i>	borrowing
22. geometry	<i>jiometiri</i>	borrowing

23. row	<i>ese</i>	change in coverage
24. rectangle	<i>rekitangulu</i>	borrowing
25. square	<i>sukua</i>	borrowing

GEOMETRY

angle	<i>angu</i>
area	<i>eeria</i>
arrow	<i>ofa</i>
centimetre	<i>sentimita</i>
centre	<i>arin gungun</i>
circle	<i>saku, obirikiti</i>
congruent	<i>dogba regiregi</i>
cone	<i>koonu</i>
cube	<i>kiubu</i>
cylinder	<i>silinda</i>
diameter	<i>dayamita</i>
degree	<i>digiri</i>
edge	<i>eteeti</i>
east	<i>ila-oorun</i>
equilateral triangle	<i>tiraangu elegbe didogbo</i>
end-point	<i>pointi ipekun</i>
formula	<i>fomula</i>
geometry	<i>jiometiri</i>
intersect	<i>pade, kora (ko are)</i>
intersection	<i>ikora (ko are)</i>
isosceles triangle	<i>ikora (ipade) aisoselisi</i>
kilometre	<i>kilomita</i>
line	<i>ila</i>
line segment	<i>ege ila</i>
mathematics	<i>matimatiki</i>
movement	<i>sisun</i>
north	<i>ariwa</i>
oval	<i>ofali</i>
point	<i>pointi</i>
plane	<i>operese</i>
perimeter	<i>iwon ayika</i>
prism	<i>pirisimu</i>
parallel movement	<i>sisun ti paraleli</i>
pyramid	<i>piramidi</i>
polygon	<i>figo elegbe pupo(poligonu)</i>
quadrilateral	<i>figo elegbe merin</i>
rectangle	<i>rekitangu</i>
ray	<i>itansan</i>
region	<i>inu operese</i>
right-angle	<i>angu to sukua, angu togun, raiti angu</i>

radius	<i>radiosi</i>
relation	<i>ibatan</i>
rhombus	<i>rombosi</i>
sphere	<i>sifia</i>
symmetry	<i>simetiri</i>
square	<i>sukua (adigun)</i>
solid (space figure)	<i>oloperese pupo</i>
space figure (solid)	<i>figo ofurufu</i>
turning movement	<i>sisun oni yiyi</i>
triangle	<i>tiraangu</i>
vertex	<i>sonso igun (sonso angu)</i>
volume	<i>folumu.</i>

8. Matimatiki/Mathematics Books Yoruba and English Editions

Primary One

1. *Matimatiki Iwe kini fun Akeko Ipin 1 — 6*
2. *Matimatiki " " " " " 9 — 16*
3. " " " " *Oluko " 1 — 11*
4. " " " *Ipin 12 — 17 fun oluko*

Primary Two

1. *Matimatiki Apa Kini Ipin 1 — 5 fun Akeko*
2. " " *Keji " 6 — 13 " "*
3. " " *Keji Iwe Oluko Ipin 1 — 5*
4. " " " " " " *" 6 — 15*

Primary Three

1. *Matimatiki Ipin 1 — 6 fun Oluko (2) Matimatiki Iwe Akeko 1 - 67*
2. *Matimatiki Iwe Oluko Ipin 7 — 12 (4) " " 63 - 104*
3. *Matimatiki Iwe Akeko Pages 105 - 168*
4. *Matimatiki Iwe Akeko Motiriki Ipin 1 - 7.*

Primary Four

1. *Mathematics Unit 1 — 6 Teachers*
2. *Mathematics Pages 1 — 80*
3. *Mathematics Unit 1 — 60*
4. *Mathematics Four: Pages 1 — 54*
5. *Matimatiki Ipin Kini de ekefa iwe Oluko*
6. *Matimatiki Ipin Kini de Ipari Iwe Akeko*
7. *Matimatiki Metiriki oji ikini de ipari*

Primary Five

1. *Matimatiki iwe karun Akeko Ipin 1 — 3*
2. Mathematics Unit 1 — 3 pupils
3. Mathematics: Teachers Guide
4. *Matimatiki Lati 82 — 149*

Primary Six

1. Mathematics Six Units 1 — end
2. Mathematics Six: Teachers Guided
3. Mathematics Six: *Iwe Akeko*
4. Mathematics: *Iwe Oluko*.
5. Suggested Syllabus for Mathematics/Matimatiki.

C. SAYENSI (Science): Writing Panel

1. Composition of the Writing Panel

The science panel comprised university and secondary school science teachers, professors of science education and science inspectors at Western State Ministry of Education. Prior to the launching of the Project, only two members of the panel had had previous experience in the teaching of science at the primary school level. The panel was later joined by the primary school teachers from the Project schools. Involving the primary school teachers at the initial stages of an experiment or project that affects them was not only rewarding but turned out to be one of the innovative ideas which the Project pioneered and became its regular procedure for all the text materials produced between 1970 and 1975.

2. Review of Syllabus

Prior to the commencement of the Six Year Primary Project in 1970, science was taught in primary schools in Nigeria as nature study, hygiene and sanitation.¹⁴ The teaching of nature study consisted of growing beans and corn seeds in small tins and watching them grow. The rest of the teaching mostly in English was textbook — centred with copied diagrams of plants, mosquitoes, house flies and the like. Memorization and regurgitation at examination time were the only means of testing a

child's knowledge in science. It was believed that 'serious science' could not be meaningfully taught before the third or fourth year of secondary school and in English! It was the belief that one could not teach science effectively at the primary or lower secondary school level.

3. Writing Procedure

Applying the philosophy of the Six Year Primary Project, the Curriculum Writing workshop believed that the child would acquire science concepts better in his mother tongue than in English at the early stages of his education.

The panel was charged with the responsibility of producing the following materials:

1. Pupils' Books II to VI (Yoruba and English)
2. Pupils' Work-books I to VI (Yoruba and English)
3. Teachers' Guide: Books I to VI (Yoruba and English)

Of all the writing panels set up by the Project, the science panel had a more formidable task. For instance, none of the science writers ever learnt or taught science in Yoruba formally before the commencement of the Project; consequently the group had to wrestle with science concepts in Yoruba.

The Yoruba language is very rich in prose, poetry, tongue twisters, abstract expressions and proverbs but hardly had any one tackled or studied in depth, science concepts expressed in Yoruba. Like the Mathematics writing panel, the science panel had to take a number of decisions prior to the commencement of the writing and testing exercises. One guiding principle was that whenever there was a word or phrase in Yoruba that adequately or closely connoted the scientific word or concept in English, such Yoruba word or phrase would be adopted.

The Project set up a 'lexical committee', particularly for science to adjudicate on final selection of words and concepts that would adequately express in Yoruba, certain scientific expressions or concepts. This panel never took off and the Project had to use the collective wisdom of the panel writers themselves, Yoruba specialists and old men and women in Yoruba villages and hamlets to meet this challenge. Experience had shown that there exist some Yoruba words, concepts and vocabulary still in use by non-literate Yoruba in the rural areas but long forgotten by or unknown to many educated or city-oriented Yoruba.

A number of methods were employed by the science panel in arriving at a decision on what Yoruba word or concept to use in a given situation:

- (a) Coinage,
- (b) Borrowing, and
- (d) Extension of referential coverage.

4. Evolution of Text Materials and Teacher Involvement

Annually, as new materials were produced, classroom teachers who were to teach the new materials to the pupils were given

- (a) induction courses before the commencement of school and
- (b) training on the job.

At the beginning of each writing workshop, the classroom teachers always presented a critical review of the text from their own classroom experience during the year both positive and negative. Some were related to level of understanding and assimilation by the children; use of Yoruba words and their preciseness or impreciseness; difficulties encountered by the teacher or the pupils during classroom activities etc.

At the beginning of each session, the first task of the writing panel which included the same teachers was to resolve all the points raised by the teachers and re-write the portions affected before moving forward. In other words, the children 'taught us how to teach them effectively'! This process of curriculum evolution characterized the entire six year writing workshops in science. By this approach, the classroom teachers taught with confidence and thus made the teacher training aspect of the Project easier to handle.

5. Teaching/Learning Aids

One important requirement in science education is to develop or design demonstration equipment along with each science unit to be taught. The primary school teachers at the writing workshops were of great assistance to the scientists on the panel. Emphasis was placed on 'local' and inexpensive materials. Most of the apparatus used was either constructed at the workshop, or improvised by the classroom teachers. For instance, articles like troughs, wooden boxes, balances, and microscopes were constructed; others like jam jars, yam tubers, or even live animals like rats, birds, cockroaches were procured by the scientists, the primary school teachers and the pupils for practical demonstrations.

6. Yoruba as a medium of Science teaching and learning

It was also the policy of this programme to use local examples where possible, e.g. clover leaves look like cassava leaves. Clover is not known

to Nigerian children but cassava is. It is, therefore, logical to use examples from the pool of samples that surround the learner.

It is accepted that it is not in all cases that local examples can be substituted; e.g. it will be difficult to have a substitute for a magnet in Yoruba. In such cases, the policy is to borrow the foreign word using the Yoruba orthography. Thus, magnet becomes *magineti*, battery — *bati-ri*, electric, *iletiriki*. Of course, this does not reduce the quality of the material being taught. If science can be taught in Italian, Japanese, Chinese or German languages why not in Yoruba, Hausa, Igbo, Ijaw, Nupe or any other African language?

Yoruba, like any other living language, is subject to modification and adjustment and rich enough to cope with new challenges in science and technology. It has many words in its vocabulary that are adequate in conveying the same scientific meaning or concept as the following examples show:

PLANT PARTS

Leaf	—	<i>ewe</i>
Root	—	<i>gbongbo</i>
Fruit	—	<i>eso</i>
Flower	—	<i>ododo</i>
Seed	—	<i>koro, horo</i>

ANIMAL PARTS

Blood	—	<i>eje</i>
Heart	—	<i>okan</i>
Liver	—	<i>edoki</i>
Lung	—	<i>edo foro, fukufuku</i>
Bone	—	<i>eegun</i>
Pores	—	<i>iho-ara</i>
Body	—	<i>ara</i>
Intestine	—	<i>ifun</i>
Skull	—	<i>agbari</i>

OTHERS

Light	—	<i>imole</i>
Wind	—	<i>ategun</i>
Air	—	<i>afefe</i>
Mirror	—	<i>jigi</i>
Sun	—	<i>oorun</i>
Moon	—	<i>osupa</i>

7. Science/Sayensi Text Books Produced

SCIENCE SYLLABUS 1—6

PRIMARY ONE

1. Sayensi One (Picture Book)

PRIMARY TWO

1. *Ounje Wa: fun Akeko*
2. *Ounje Wa: fun Oluko*
3. *Sayensi two*

PRIMARY THREE

1. Science Teachers' Guide
2. *Sayensi Iwe Akeko Apa keji*
3. *Aro Ati Ese*

PRIMARY FOUR

1. *Omi Ati Ilo re*
2. Water
3. Science four Teachers' Guide
4. *Sayensi fun Akeko Apa Keji*
5. *Sayensi Iwe Oluko*
6. Home Economics
7. *Kose ma ni fun Eda Alaye — Oluko*
8. *Kose ma ni fun Eda Alaye — Akeko*
9. Essentials for life, Teachers' Guide

PRIMARY FIVE

1. Farming method: Teachers' Guide
2. Farming method: Pupils' Guide
3. Solution And Mixture
4. Yoruba:— *Sayensi iwe Oluko*
5. *Okoro lona Isedale Apa Karu — Oluko*
6. *Okoro lona Isedale Apa Karun — Akeko*
7. *Aro Ati eese — oluko*
8. *Aro ati eese — Akeko*

PRIMARY SIX

TITLE:

1. Science Six: pupils
2. Science Six: Teachers' Guide
3. *Sayensi: Iwe Oluko*
4. *Sayensi: Iwe Akeko*
5. Sounds around us: Teachers and Pupils
6. *Iro ni ayika wa: Teacher and Pupils*
7. Suggested syllabus

D. Social and Cultural Studies: Writing Panel

Operational Strategies

In this subject-area, the Panel decided to operate within the framework of the strategies evolved by the Project, that is:

- (a) to develop materials with appropriate methodology for teaching and learning the prepared curriculum;
- (b) to develop materials in both Yoruba and English;
- (c) to organize writing workshops for the development and evaluation of the curriculum materials; and
- (d) to test the developed curriculum materials in the classroom and arrange for a feed-back from the classroom teachers, to effect improvement during subsequent workshops.

Since the subject area of Social and Cultural Studies was considered new in the primary school curriculum, the development and implementation of its syllabus had many facets which included:

- (a) the formulation of a six-year syllabus;
- (b) the preparation of a scheme of work;
- (c) a re-blocking of the time-table;
- (d) the provision of Teacher's Guide, and
- (e) the production of pupils' texts at the appropriate levels.

Other curriculum materials like work books, supplementary readers and visual-aids were also designed to stimulate initiative, self-confidence, and resourcefulness in the pupils.

Since Social and Cultural Studies was relatively new as a subject area, materials had to be developed from scratch. This posed a challenge to the panel to.

- (a) design a suitably graded Social Studies programme
- (b) evolve a basis for selection of contents for the different levels of classes; and
- (c) produce appropriate texts for both pupils and teachers, thereby creating such materials as would assist in effectively realizing the stated aims of the new area of learning.

The task of implementation was carried out in two stages, each of which involved long processes. The first stage was that of producing all the needed materials for the execution of the programme, and the second was that of introducing the materials to the school which, in itself, called for the training of the classroom teachers.

It is probably necessary to reiterate here that the nature of the Six-Year-Primary Project was essentially one of experimentation in language. The Yoruba language was to be used for education with a view to making primary school education more effective than hitherto. The introduction of Social and Cultural Studies as a new curriculum area was, therefore, to:

- (a) introduce to the children the customs, practices, norms and values of the society in which they lived;
- (b) inculcate in them an awareness of these values, and a sense of patriotism, honour and respect that the society holds in high regard;
- (c) expose the children, through instruction, to other values and concepts foreign but nonetheless essential to living in a wider community in an acceptable manner;
- (d) enrich the language (Yoruba, in this case) thereby through the introduction of new concepts that demanded special registers, lexis and, possibly, new language structures; and finally,
- (e) improve the pupils' skills in the use of the mother tongue in communication correctly, coherently, and intelligibly.

The pre-writing Exploratory task

The panel of Social and Cultural Studies writers, as mentioned earlier, was made up of University teachers, College of education teachers, interested professional officers of the Ministry of Education and experienced primary school teachers. A unique aspect of the composition of the panel was the inclusion of interested parents as local resource-persons who were interested in, and were associated with, the promotion of cultural heritage in the community.

Writing Procedure

As with all the panels in the various curriculum areas, there was initial briefing on the philosophy of the Project. This was generally followed by the outlining of the aims and objectives of the particular subject-area which finally culminated in the delineation of the job of the panel. The Social and Cultural Studies panel usually resorted to brain-storming as the basis for the selection of curriculum content.

Workshop Technique

It is pertinent to reiterate that workshops were a feature of the entire Project throughout the period of the Experiment. They were mounted for:

- (a) the writing of materials in the subject areas;
- (b) the training of teachers in the use of prepared materials for the classroom;
- (c) the introduction of new materials to Project teachers;
- (d) the stage-by-stage evaluation of the text-materials produced, and
- (e) the assessment of pupil achievements.

Social and Cultural Studies Texts

Adverting to the stated aims and objectives of Social and Cultural Studies, no texts would be needed by the beginners. Texts produced for that level were mainly guides

for the teachers — they were expected to direct the pupils' activities in their attempts to understand their immediate social and cultural environment and learn the norms and ethical values of the community.

Social and Cultural Studies is aptly translated as *Ilana Ibagbepo* in the mother-tongue and so the texts were produced in order of succession to educate the children on *Ibagbepo*

- | | | |
|---------------------------|---|-------------------------------|
| (a) <i>Ni Ilee wa</i> | — | Our Home |
| (b) <i>Ni Adugboo wa</i> | — | Our Neighbourhood |
| (c) <i>Ni Ile Ekoo wa</i> | — | Our School |
| (d) <i>Eree Wa</i> | — | Games and Pastimes and so on. |

These texts only provided information to the teacher on procedures, description and rules of the games.

At this level, the resources of the local people were tapped to the fullest in the provision of item-contents like stories, anecdotes, information on religious observances and traditional practices that exemplify virtues, attitudes and ethos which define the Yoruba culture. In addition, in the development of a concept, whenever the text writers ran into difficulties on the issue of appropriate vocabulary like register or lexis, the local-resource people were available to give required assistance.

By this involvement of the children's parents (the local resource-persons) in the creation of materials, the contents of education Social and Cultural Studies became more meaningful and real to them. The materials so evolved provided the pupils with a means of contact with a world beyond the walls of the classroom.

Texts for teachers were generally comprehensive and detailed. For one reason, teachers were expected to give guidance, directives and explanations to pupils in respect of certain aspects of the culture of the society, and so needed to be supplied with all available information, leaving them to supplement this from inquiries as occasions demanded. For another reason, because of the novelty of the curriculum area, the teacher himself needed a good deal of help and orientation which would facilitate his classroom operations.

The texts prepared for pupils were characterized by very simple language structures though not at the expense of appropriate lexis and registers specific to the topics under treatment. The texts were also characterized by illustrative pictures which provided topics for exercises in the development of the pupils' communicative skill, and practice in coherent and intelligible communication. For instance, especially at an advanced stage, where texts were to include ideas or concepts foreign to the society, registers were evolved by borrowing, by translation or by coinage, all of which contributed to the enrichment of the mother-tongue (Yoruba). As the whole Project was predicated on the role of language in education, it followed that all the texts relating to Social and Cultural Studies for both teachers and pupils, and for all levels of the primary school for the six years were produced in the mother-tongue.

In the existing school system, as already described, primary education for the first three years was conducted in the mother-tongue; thereafter, and for the rest of the span of primary education, instruction was conducted in the second language — English, or as is known to happen, in a mixture of the mother-tongue and English. In conformity with the existing language policy, the Social and Cultural Studies texts, as from the fourth year of primary education, were produced in both Yoruba and English language.

Social and Cultural Studies in the Classroom

The second stage of the implementation of the curriculum development was the introduction of the course into the school. It should be noted, however, that after the first three years when it was assumed that pupils would have been able to read to a reasonable degree and with understanding, some texts were produced for the pupils in addition to the teachers' guides.

The manuscripts, especially for the pupils, were usually submitted to the language experts among the Project organizers for proper editing, during which the suitability of the subject content was determined, the language of the writers was moderated to the level of understanding of the learner, and correct orthography was ascertained. We would like to re-affirm that texts for all the subject areas including Social and Cultural Studies were mimeographed for the entire period of the Project.

In addition to the opportunity that the teachers had to work with the panel of writers during the workshop period, at the stage of introducing the subject into the school, on-the-spot orientation courses were run for the teachers to familiarize them with the contents of the text, the technique in the use of it, and to acquire appropriate methodology for the teaching of the course.

A notably happy aspect of the exercise at this stage of trial-testing of the text material was that the materials placed in the hands of these teachers were a product of their joint efforts with the curriculum developers, and so they displayed an uncommon interest and delight in the teaching of the contents that were real and meaningful to them. It was the outcome of the classroom experience that the teachers fed back to the curriculum writers at every succeeding workshop session, as a guide in the preparation of subsequent instructional materials or course contents. The materials thus developed allowed for a free classroom atmosphere which was conducive to teaching activities of a solid, meaningful type; the kind of atmosphere that would produce 'better-adjusted', more relaxed, more enterprising and more resourceful pupils as postulated by the organizers of the Project.

Time-Table

The description of the development of the Social and Cultural Studies curriculum would be incomplete without reference to the modification in the classroom organization and time-tabling. The nature of the contents of the subject areas which runs through the discipline of everyone of them demanded that the rigid classroom time-

table which put every learning activity into a water-tight compartment had to be rejected in favour of a flexible one like the block-time system which allowed for a process of continuous and organic learning without compartmentalization.

Classroom operation under this experiment made it possible for parents as local resource persons, on invitation, to interact with the school during the teaching of some special topics, like 'Festivals'. This interaction introduces another element into the teacher-training programme, especially in the implementation of the Social and Cultural Studies role. And thus, to the parents, the activities in the classroom became a reality, and primary school education ceased to be a matter of conjecture or fantasy, and for the first time, the home came to take active interest in the work of the school. One side-effect of this collaboration by the curriculum specialists with the local resource-people was the mutual interest developed between the school and the home, thus developing an established rapport euphemistically referred to as the meeting of 'gown and town'.

Evaluation of the Social and Cultural Studies Programme

It is essential to highlight the role of the primary school teachers in fostering the establishment of social and cultural studies in school and according it a pride of place in the general curriculum of the primary school.

The entire Project included in its personnel, right from the start, primary school teachers of long standing when the curriculum was to be developed. It was therefore a natural sequence that these teachers should be the ones to test the Project pupils in the classroom. Since these teachers were involved in the workshop sessions for writing, their experience in the classroom served as an evaluation mechanism for the improvement of the Social and Cultural Studies syllabus, scheme of work and texts produced, where necessary.

As a completely new subject-area, the classroom teachers to handle it were given special training in instructional technique, and this had in it an in-built evaluative strategy. It was, in fact, part of the conception of the curriculum developers that, at every stage, it should be possible to assess the effectiveness of the instruction as well as the learning successes of the pupils through demonstrable skills, appropriate knowledge, attitudes and normative behaviours.

Texts Produced for Social and Cultural Studies were:

SOCIAL & CULTURAL STUDIES

1. *Eto at Ilana Ibagbepo 1—6*
2. *Scheme of work 1—3*
3. *Adugbo Wa*
4. *Eranko Agbegbe Wa*
5. *Igbo Agbegbe Wa*
6. *Owo Sise ni Agbegbe Wa*

7. *Ounje Wa*
8. *Odun Ibile & Alaye Fun Oluko*
9. *Awon Akoni Ile wa*
10. Makers of our History
11. *Iselu*
12. *Awon Osise Ijoba, Iwe Oluko*
13. *Awon Osise Ijoba ni Ipinle Wa, Iwe Akeko*
14. *Awon Egbe Iyonda Ara Eni*
15. How Nigeria came into Being
16. *Eto Ijoba Naijiria*
17. How Nigeria is Governed
18. *Eko Nipa Nigeria*
19. Know Your Country
20. Administrators of Nigeria
21. Various ways by which Government derives Revenue
22. Nigeria and its West African Neighbours
23. *Naijiria ati Awon Orile-ede Iwo Oorun Afirika*
24. *Ile mi ati Ile iwe Mi*
25. *Ajumokegbepo ni Ile iwe*
26. *Gbigbe ni Ile Wa*
27. *Ayika wa*
28. *Awon Ibi pataki ni Ile Wa*
29. *Awon Eranko ni agbegbe Wa*
30. *Ijuwe*
31. *Irin Ajo oju inu yi aala Naijiria ka*
32. *Bi Naijiria ti se bere*
33. *Awon Alakoso Idasile ati Idagbasoke Ijoba Naijiria*
34. *Bi a ti se eto Ijoba Naijiria*
35. *Esin Ibile*
36. *Indigenous Religions*
37. *Oju osu ati odun Yoruba*
38. The Commonwealth

E. English Language: Writing Panel

Composition of the English Writing Panel

The panel comprised English Language specialists from three Universities and three teacher training colleges. Some classroom teachers from the Project school were later included in the team for feedback purposes. After some training however, they were also able to contribute supplementary readers.

Review of the Existing English Language Syllabus and Texts

The Panel examined the existing English Language syllabus critically and found it inadequate. The English course books which were in use were also examined and equally found inadequate. In 1970 when the Project began, many of the English course books were about to be replaced with new editions. However, since these revised editions were still in the preparatory stage, the panel could review only what was available in the market. Most of these English courses were found to be rigidly structured - bound and drill-oriented, without much relevance to the child's interest or reference to his everyday life. They tended to promote memorization of sentence patterns rather than a basic understanding of how language works. They lacked reading readiness exercises and there was insufficient provision of meaningful and interesting oral work. With these findings as the background, the panel then proceeded to develop a new English Language syllabus with accompanying instructional materials to meet the objectives of the Project.

Writing Procedure

The English Language syllabus was developed during the first writing workshop, and was followed by instructional materials and schemes of work for primary I. During the subsequent annual workshops, new texts were written for the next class, while the previous year's texts were reviewed and modified, in consonance with the feedback from the field supervisors and classroom teachers who taught the subject.

The writing panel began with a general writing procedure which identified all the needs in terms of instructional materials. When these needs had been identified and all the materials described, the panel allotted writing tasks to its members and the specific talent and interest of each member were identified in making the allotment. General principles were laid down for writing, editing and reviewing processes, particularly after each feedback session.

Decisions were taken within the panel on the choice of language items, degree of coverage and mode of staging and grading for each of the texts. Each material produced was submitted to the panel for discussion and critique. Time was also set aside during the workshop for the writers to work with the classroom teachers.

In writing the texts for English, the needs of the two Project groups, the experimental and control were identified and catered for. Some needs were common to both while others were specific to each. In the first three years of schooling, both the control and the experimental groups learned through the Yoruba medium, and English was taught to both groups as a subject. At this level, all instructional materials except English were the same for both the experimental and control groups.

This distinction was made as a result of the character of the experiment. It was postulated that if English Language were taught more systematically by specially trained teachers with carefully designed instructional materials, the pupils taught through the Yoruba medium for six years would not demonstrate a significantly

lower level of English Language achievement than the pupils taught through the Yoruba medium for three years and the English medium for three years; rather, it was hoped that they would do better. Because of this assertion therefore, it was considered necessary from the beginning to provide the experimental group with additional materials and extended teaching time through specialist teachers of English. Below is a table indicating the types of instructional materials made available to the groups.

'A' indicates average English Language materials provided according to the new Project English Language syllabus. 'X' indicates specially designed English Language materials for use in the Yoruba medium classes.

Table 6 Distribution of English Language Instructional Materials

Experimental Group	Control Group
1. Reading Readiness Exercises X	1. Reading Readiness Exercises A
2. Pupil's Course Reader A + X	2. Pupil's Course Reader A
3. Teachers' Guide X	3. Teacher's Guide A
4. Supplementary Readers A + X	4. Supplementary Readers A
5. Work books X	5. Work books A
6. Comprehension Texts X	6. NONE
7. Medium Servicing Texts X	7. NONE
8. Teaching Charts, Cards, pictures etc. A + X	8. Teaching Charts, pictures etc. A

Instructional Materials Produced

It is necessary to describe briefly the instructional materials tabled above since they were crucial in the testing of the hypotheses.

1. *Reading Readiness Book*

Before describing the English readiness materials, it is pertinent at this point to mention that both the experimental and control groups went through reading readiness exercises in 'Yoruba as a Subject' which was the same for both groups. For the English lessons however, two separate readiness programmes were used for both. For the control group, the English course book contained some preparatory work for early reading. This was why the course was selected when existing course books were assessed for use by the Project. The

control group was provided with the full complement of the Course including the first picture book which contained some of the exercises listed in the experimental readiness book.

The experimental group was provided with additional readiness exercises because part of the policy was that there would be extended oral language practice before reading could begin for this Yoruba medium group. This was to ensure intensive training in reading Yoruba and to give pupils a chance to develop some measure of competence in oral English communication. The reading readiness for the experimental group therefore contained the following:

- (a) pictures of events arranged in logical sequence for pupils to Tell the Story;
- (b) skillfully presented objects, shapes, symbols, and letters for visual perception and discrimination;
- (c) exercises with reference to sound producing objects, letters and words for auditory perception and discrimination;
- (d) diagrams to trace, for training in left to right progression;
- (e) games on sensory awareness and description;
- (f) exercises to stimulate experience stories;
- (g) concept formation games.

II. *Pupil's Course Reader*

The course reader was the same for both in the first four years. The fifth and sixth year readers were modified for the experimental group to accommodate some of the additional exercises recommended in the teachers' guide for the experimental group. The readers contained:

- (a) reading passages with comprehension exercises;
- (b) language exercises for structure practice;
- (c) activities for reinforcement of concepts acquired.

III. *Teachers' Guides*

All course readers are usually published with accompanying teacher's guides. The control group was provided with the adapted English course books without any modification. The teachers' guides that came with them were also used by this group without changes. The guides contained step by step introduction of language items and how to teach them. They also provided methods for teaching writing, reading and comprehension. The language items included the following:

- (a) vocabulary;
- (b) basic structures and sentence patterns;
- (c) drills and pattern practice;

- (d) instructions for teaching reading;
- (e) procedures for comprehension exercises;
- (f) other language exercises, such as composition, story writing, letter writing, application for jobs and so on.

For the experimental group, the teacher's guides were specially designed to incorporate additional sentence patterns and structures of the English Language which the Yoruba medium group might not have learned or acquired otherwise since they were not going to learn through the English medium. The guides therefore contained the following:

- (a) carefully selected vocabulary to cover the range of subjects taught in Yoruba;
- (b) carefully selected structures and registers to cover other subject areas and to establish easy communication in English;
- (c) dialogues and games for promoting correct language habits and fluency;
- (d) writing exercises — composition, story writing, letter writing, application for jobs etc.;
- (e) specially designed processes for teaching reading with reference to the readiness exercises introduced earlier;
- (f) procedure for teaching extensive reading and for using each of the additional texts provided;
- (g) procedure for teaching oral and reading comprehension to ensure deep understanding and to promote interest in reading;
- (h) preparatory exercises for common entrance examination tests for secondary schools;
- (i) self testing language exercises to reinforce mastery of the various language skills.

IV. *Supplementary Readers*

Supplementary readers were provided for both groups of pupils. The control group received an adequate quantity of supplementary readers which were selected for the different levels.

The experimental group received those which were specially written for them, incorporating the additional concepts and structures described earlier. Both groups were monitored in their extensive reading assignments. However, time proved that the experimental group, by virtue of their initial reading training, tended to read more books and to read faster; consequently, they covered a wider variety of supplementary readers.

V. *Work Books*

Work books were provided with the course books used by the control group. These contained language exercises which were directly related to the content of the course books. The experimental group on the other hand received work books which incorporated both the structures and lexis of the common course book and the additional ones in the special teacher's guide.

The work books also provided extensive language practice for mastery. The items and methods of presentation were such that pupils could get on at their own pace and on their own. No new work was ever introduced in the work books. They were designed specifically for reinforcement of what had been taught.

VI. *Comprehension Texts*

These were designed for the experimental group only. Here again, it was felt that extensive reading alone was not sufficient. Pupils need to develop the skills of intensive reading. They must read with deep and not shallow understanding as is commonly the case at this level. The content of the texts therefore ranged between short and long passages which reflected varied interests within the pupils' level of language competence. The comprehension exercises that followed were designed as training processes. They elicited not only factual responses but also those which called for inferences, judgement and conclusions. Some of the exercises also contained activities which the pupils had to perform to demonstrate their understanding of the passage.

Careful attention was paid to the choice of lexis and structure in the text to ensure that those used were the ones that had been taught and re-used by the pupils repeatedly.

VII. *Medium-Servicing Texts*

These were also designed for the experimental group only. As explained before, this group needed to learn concepts and registers from the other subject areas — mathematics, science and social studies, which they learnt through the Yoruba medium. The texts were designed in the form of story books and activity books. Pupils were allowed to take them home to read and work on them since there wasn't sufficient time to cover them all at school.

VIII. *Charts, Cards, Pictures etc.*

Teachers of both groups were taught to prepare wall charts, reading cards, pictures and other relevant items which could promote language learning. Because the experimental group of children were being taught by specialist teachers of English, their classrooms tended to display a

greater wealth of visual aids for both individual and group work. In a few isolated cases, teachers of control classes endeavoured to match what was done in the experimental classes.

Use of Instructional Materials

Texts were developed extensively for the teaching and learning of English on the Project. Both groups were also encouraged to have a class library each, so that books would be readily accessible to the pupils. Furthermore, pupils would be encouraged to read more extensively. This example was emulated by the entire school because every single class including the non-project classes, subsequently set up library shelves in one corner of the classroom. The headmaster also installed a huge cupboard library in his office and pupils in the different classes were free to borrow books from the library.

A general policy was laid down in respect of Project book usage. Pupils were allowed to take some of them home for use but if they lost or ill-used them, they paid a fine to cover the cost of replacement. At the end of each year, pupils took away only the work books which could not be re-used. All the reading texts were left in school for use by the next set of pupils. Those which were too tattered for use were replaced by the Project.

Teachers were provided with their own texts and reference books. These too could be taken home for note preparation but if lost must be replaced. In the process of teaching, teachers were expected to record all the problems encountered with detailed descriptions for the text writers at the feedback sessions. They were also to record pupils' responses to innovative methods whenever they were introduced.

At the initial stage of the experiment, some problems ensued over the use of texts for the control and experimental classes. Because of the proximity, the teacher in the first control class persistently and surreptitiously borrowed the reading text and teacher's guide specially designed for the experimental classes and would use them in the control class. He felt his ability to teach effectively was being put to test and he did not see any reason why the materials should be different in respect of the two groups. Great pains were thereafter taken to explain to all the teachers, the Project policy and objectives as well as the innate character of a research Project, such as that was.

Table 7: Breakdown of English Language Instructional Texts

TEACHER'S BOOKS	PUPILS' BOOKS	Workbooks
	Course Book	
Trs. Guide Book 1	Day by Day English Course revised for the Project	Workbook 1a Workbook 1b Workbook 2a Workbook 2b
Trs. Guide Book 2	Book 1	Workbook 3
Trs. Guide Book 3	Book 2	Workbook 4
Trs. Guide Book 4	Book 3	Workbook 5
Trs. Guide Book 5	Book 4	I can count
Trs. Guide Book 6	Book 5	I can read and write.
Comprehension Texts and Exercises Common Entrance Texts for Practice.	Book 6	

Supplementary Readers

- | | | |
|--|------------------------------------|---|
| 1. Jide & Jimi. | 8. Tunji Goes
on Holidays. | Beyond the
Mountain. |
| 2. The Fish and
the Frog. | 9. Kemi and the
Sea Creatures. | 18. Olu and the
Snake dance |
| 3. The Village School | 10. Wale's Entertainment. | 19. Olu plans
another journey |
| 4. Olu and His
Family. | 11 The Stupid Short Man. | 20. Bisi goes to the
Boarding School |
| 5. The Foolish
Tortoise and the
Gourd of Wisdom. | 12. The Stupid Short
Man Again. | 21. Little Ade in
the Farm |
| 6. Wale Visits the
University of Ife. | 13. Olu Goes North. | 22. Folu and her dog |
| 7. The Three Lazy
Men. | 14. The Offenders. | 23. The day Kunle
woke up late. |
| | 15. Learn About Nature. | |
| | 16. Christmas At Home. | |
| | 17. The Village | |

IV

Production of Materials for the Project

The Genesis

In every situation of formal education, there is always the need for some form of instructional materials. When the situation turns out to be that of traditional school setting, the essential material for teaching and learning is BOOKS. Of course, when the focus is on facilitating teaching and learning, other forms of materials than books come into consideration. For example, at the elementary level, the chalkboard is an indispensable material to reinforce the teacher's verbal explanation through illustration, diagram, sketches etc. on the board for visual aid and demonstration.

In the circumstance of the Six Year Primary Project, the production of books — reading materials, becomes a *sine qua non* for several reasons. For example:

- (a) the subject-areas as defined by the Project were of different orientation from what existed in the school system. Hence, there were no books to foster the operation of the Project programme at the initial stages;
- (b) where books existed, they did not conform with the philosophy and objectives of the Project;
- (c) the Project was concerned with the policy of language in education;
- (d) almost all the existing books were written in a second language (English), which made them unsuitable for the Project both in content and in language.

The practice whereby teachers taught unofficially in the mother-tongue from the provided texts written in English did not help either the teacher or the pupils. The teacher on his part had to contend with the task of first understanding the text-content and then translating into the mother-tongue for communication with the learner. It was not uncommon that the teacher's knowledge of the second language was defective with the resultant effect that distorted ideas were communicated to the pupils through misinterpretation. On the part of the pupil, learning was hardly ensured resulting from faulty presentation of facts not clearly understood by the teacher.

To obviate this bottleneck in the communication of ideas and cultivation of values in the process of teaching and learning, it was the decision and policy of the Project Organizers to produce books for both the teacher and the pupil in Yoruba to meet the demand of the Project and realize its objectives.

From what was known of the existing school curriculum and its contents, it was obvious that for a primary education that might be terminal for many primary school pupils, the contents of the curriculum must be rich, diverse and purposeful so that it could have a surrender-value for all the learners whether they stop after the primary school stage or continue to further their education. There were no available texts that could satisfy these conditions and so production of books became imperative.

Strategy for Material Production

The experiment in language education that the Project was out to try, was a venture of hope, yet full of uncertainties. It was envisaged there would be difficulties to get teaching materials and pupils' texts produced by the traditional publishing houses. For one reason, the language of the texts to be produced was Yoruba which needed special typewriters with appropriate combination of letters, accent symbols, diacritical marks etc. For another, the Project wanted to produce these materials cheaply.

With the realization of these facts, the organizers resolved to set up a Book Production Unit within the Institute of Education of the University of Ife (now Obafemi Awolowo University). This unit had the sole responsibility of producing texts for use in the Project schools.

Stages of Production

The Production unit set up by the Project had to relate to the writers in its operation. The unit could only produce what was submitted to it by way of manuscripts, and so its activities were bound integrally with the work of all the writers. The activities of the unit comprised: collection of manuscripts, assembling them, editing or re-writing of scripts and producing them as *Books* for Project use. Each of these activities had its many parts which called for a division of labour.

Stage One — Panel of writers

The production of books started with the panel of writers in the different subject-areas and thus formed the core of the production unit. For the production of any book in any area, the collection of raw material was a product of the discussion by the group of writers in the particular area. The raw data deriving from the brainstorming sessions of the men and women assembled for this purpose were refined and became the guideline for the individual writer who was assigned to write the full text. In all the subject-areas, the group met to plan and write out the texts, and the individual writer was commissioned to write for any given area in which he had special interest. The text or manuscript writer was expected to produce only the needed content.

It is necessary to comment on the collection of materials. The discussion among the writers that eventually led to the production of materials, as a rule, took place in a workshop setting. This setting made possible cross fertilization of ideas through consultation with, and reference to, other experts in related field of studies who were also in similar sessions. Once the decision was taken on the needed materials, any commissioned writer could start to write during the period of the workshop; but most writers, after striking at the broad outline of their subject matter, preferred to go to write the detailed content of the subject in the privacy of their study.

Stage Two — The write-up

Not every writer for the Project was a specialist in Yoruba, even though everyone of them had to produce his/her material in the mother tongue (Yoruba), except writers of English texts. All the same, each text, in whatever area of discipline, was expected to conform to the required standard for the promotion of teaching and learning.

Following the production of the scripts by the writers, the scripts were next submitted to the specialists in language and methodology. They had to ensure that the vocabulary of the text in terms of register and lexis was graded to suit the reading level of the prospective users. They also had to ensure that the manuscript covered the required grounds and that the contents were clearly and simply presented with sound methods conformable to the laid down standard by the Project to produce the anticipated results.

Stage Three — Editing

When the manuscripts had been completed, it was then turned over to the editorial unit which was a part of the larger production unit. In the editor's room, the manuscript went through the intense processes of scrutiny. Efforts were made to see that both language and sentence structure were appropriate, and, in respect of the mother-tongue (Yoruba), that the text reflected the new orthographic conventions. Here, again, attempts were made to remove from the manuscript any imperfections that might have originated from the writers.

The editorial unit comprised the assistant editor and the head of the Production unit. Because of the volume of editing work involved, the assistant editor enlarged the editorial staff by training some interested undergraduate students of Yoruba and English language to assist in the exercise of editing.

As the manuscripts were typed out, a copy went to the head of the production unit. He would study the content and suggest what he deemed necessary to enhance its quality and standard. He would also add notes to the text giving explanations on art briefs where needed. The suggestions were tabled for discussion with the artist who would also give his views on how best the illustration should be presented to meet the standard and demands of the text (book).

Stage Four — Production

For ease of operation, when a manuscript was completed and submitted to the production unit, the unit made out three typed copies.

One of these went to the editorial unit for action as already described; another went to the head of the production unit similarly for appropriate action as previously described; but the third typed copy was filed away with the manuscript for future reference and treatment.

Illustrations had to be cut out and mounted on blank pages for scanning. Where extra texts had to be added to illustrations, space for each illustration was marked out on a blank typing sheet with the space for the text given to the typist. At this stage, the production had to be done with precision.

After the manuscript had been faired, the typed stencils were arranged with the illustrated sheets inserted in the correct sequences. A final check-up followed to ensure that the text flowed smoothly from one page to the other, then the pages were numbered in serial order; the plain sheets with illustrations were then pulled out for scanning. It was after this that the complete script with illustrations were mimeographed for use in schools. The number of mimeographed copies produced always depended on the Project school population at any given period. For example, in the first year, the Project school population was 80. There were 5 subject areas with a minimum of 3 texts for each subject area, giving us a minimum of 1,200 copies of the mimeographed texts. With an annual intake of not fewer than 80 pupils for six years, the Project produced a minimum of 7,200 copies of mimeographed texts in the 6th year alone for the St Stephens' (Pilot) school. For the 10 proliferation schools, an additional 10,500 copies were produced in the 6th year alone.

Production of materials was not a once-for-all activity; it was a continuous engagement. For instance, a text was sent to the classroom for trial-test to establish its appropriateness. In the process of trial testing, some mistakes-errors of facts or information or even statistics, might be discovered. This might involve re-writing of a new piece or correction of a few pages. If the errors were extensive enough, the re-writing might involve all the processes of selecting fresh materials, editing, illustrating etc. All texts were under constant review for validation.

Personnel in the Production Unit

In addition to the head of the Production Unit and his assistant, a full time resident artist was assigned to the Unit. There were also other members of the Institute staff who assisted with the different facets of production, for example, typing, editing, scanning, collating, binding, etc.

V

Teacher Training for the Project

Background to Teacher Training

Though many new pre-service and in-service teacher improvement programmes have been introduced by the Federal and State Ministries of Education since the implementation of the Project, the teacher training programme as it existed for primary education at the advent of the Project is presented in this report.

As mentioned earlier, the training of primary school teachers took place principally at the Grade II teacher training colleges. The period of training depended on the entry qualification of the student. Those with primary six school leaving certificate spent five years in training; those with full secondary education, one year. The Grade II colleges combined professional training with secondary school subjects. Ironically, these primary school teachers in training were not trained in the use of mother tongue as a medium of education. It was assumed that exposure to Infant Methods would make up for other inadequacies, though effort was made to teach English methods. Furthermore, a Nigerian language e.g. Yoruba, Hausa or Ibo was not a compulsory subject for primary teachers whereas English was compulsory. As mentioned earlier, the ability to read, write and speak English is still considered to be the hallmark of educational excellence. However, because of the limited educational background of most teachers trained in these Grade II colleges, their standard of English was often low. Like the pupils they taught, many of these teachers were neither proficient in Yoruba nor in English; consequently, the children were exposed to bad models. With this background therefore, the Project Organizers felt the need for intensive re-training of the teachers selected for the Project. Since it was not possible to send all the teachers back to the college due to time constraint, it was decided that training would take varied forms and should be such that would not take the teachers out of their post for any length of time unless they were on study leave.

Teacher Training for the Project

Teacher training for the Project took five different forms. They were as follows:

- (a) Regular 'On The Job Training';
- (b) Evaluation Workshops;
- (c) Special Workshops for Introducing New Materials;
- (d) Long Vacation Workshops for Text Writing and Teaching Methods;
- (e) Short Overseas Training for specially selected teachers on the Project.

Other training programmes which were not directly built into the Project but from which teachers and supervisors benefitted immensely were:

- (i) the Ford Foundation sponsored Masters and Doctoral programmes which were undertaken in the United States by two Institute staff who were participating in the Project; and
- (ii) the Associateship Diploma Course in Pre-Primary and Primary Education from which Project specialists were drawn.

The Associateship Diploma course was organized by the Institute of Education, University of Ife, and it operated the new syllabus as recommended by the Project. Each of the five scheduled training programmes listed above had a specific aim and purpose. The teaching of all the five subject areas were covered in great detail. Considerable emphasis was placed on training teachers for language use and teaching, that is, the mother tongue and English, since the Project was an experiment in Language Education.

It had been assumed over the years, that it was not necessary to train a teacher to teach his mother tongue as a subject or to use it as a medium of instruction. However, the structure of the Project soon proved that assumption to be wrong. Observations of classroom teaching which were carried out before the commencement of the Project, showed that, teachers needed to be trained to teach and use the mother tongue for the success of the Project. It was also thought necessary and important for all teacher training colleges to incorporate this aspect of language education in the national teacher training programmes; especially as the *National Policy on Education* recommends the use of the mother tongue as a medium of instruction in the early years of primary education.

Extensive work was done in respect of mother tongue training because of the direct bearing it has on the successful teaching and learning of English as a second language. Each of the training programmes therefore endeavoured to put the teachers through the rudiments of language teaching. There was co-ordination between the two languages at every stage.

Teachers were taught to appreciate the fact that, though the mother tongue and the second language must be taught as separate entities, the systematic teaching of the mother tongue has many benefits for the learning of the second language. There



First Writing Workshop, Summer 1970

- Standing left to right:** P. Orimoloye; J.S. Afolayan; A. Afolabi; Mr. Jibodu; J.O. Ofesanmi; M. Afolayan; C.A. Fowole; J.F. Lawuyi; E.I.A. Adenuga; J.O. Ajimoko; L.A. Akiye; S.O. Onofowokan; R.O. Alabi; Mrs. Ogunjimi; J. Akinola; R.O. Olabode;
- Sitting left to Right:** D.A. Ologunde; A. Adetugbo; I.O. Delano; J.I. Macauley A.B. Fafunwa; M. Shaplin; J.A.F. Sokoya; A.M. Ebosebikan; B.O. Osibodu; J.O.B. Adebambo;
- Back row (last)** E.O. Ilori; A.A. Adelani; J.A. Akere; F.O. Fatudinu; Mrs Ayoola; C. Adebayo; J.A. Salako; M.A. Makinde; J.O. Abiri; A. Afolayan.

SIX-YEAR PRIMARY PROJECT. ST. STEPHEN'S 'A' MODAKEKE
CONTROL CLASS SCHOOL LEAVERS: JULY 1975



AK. JENNY N. N.



AKAHEKE TALLI DETH



AKERIKAN JIMPHI



ADEJUNO JIMON



ADGBYE SHEL



A. I. NABALA JULIUS



AK. PHINI EMMANUEL



AK. INTIMI AK. BEN



AK. NYELE AYORAN



AKOPOLAJIN OLUFEMI



BABALOLA OLUFEMI



OLAYIDE HARARI



OLUTOLA OLUFEMI



OGHI LATIFE



NETIE TYELEN



OLAJUYIGBE AYORUN



OLUWAFEMI EMMANUEL



OLUWAFEMI OLUFEMI



AREGANE OLUBUNMI



APESABI ADESUMOLA



AREGAYI PATIENCE



ATINMA RAY



AK. PHINI OLUFEMI



AK. IYINBO ATINURE



AK. IYINBO JAYESOLA



AK. IYINBO SIDIKATU



BABALOLA TEMILEREUN



OJULAPE DESORUN



OYELE. THANE



OLAYE FUMILOLA



OLAYE BURBA



OLUJERE OLUFEMI

SIX-YEAR PRIMARY PROJECT. ST. STEPHEN'S 'A' MODAKEKE EXPERIMENTAL CLASS SCHOOL LEAVERS: JULY 1975.



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ADAMU ADAMU

SIX-YEAR PRIMARY PROJECT STAFF HEADMASTER



Mr. A. Adesola

SPECIALIST TEACHERS



Mrs. A. Ogun



Mrs. A. Ogun



Mrs. M. Adigun



Mrs. M. O. Anjorin



Mrs. W. I. Osoba

CLASSROOM TEACHERS



Mr. A. Ogun



Mrs. A. Ogun



Mr. A. Ogun



Mrs. S. O. Ayodeji



Mrs. A. Ogun



Mrs. A. Ogun



Mr. A. Ogun



Mr. A. Ogun



Mr. A. Ogun



Mr. A. Ogun



Mr. S. O. Ayodeji



Mr. A. Ogun



Mr. S. O. Ayodeji



University of Ife Graduation December 1987:
Prof. A.B. Fafunwa received honorary LL.D. while Miss Oluseyi Olojede, one
of the first pupils admitted to year 1 of the six year primary project in 1970 recei-
ved her M.Phil in Linguistic at the same ceremony.



WORKSHOP SEMINAR, SUMMER, 1970

L to R: D.A. Ologunde, A.M.Laosebikan, A.B.Fafunwa (Director) Standing, Late Mrs. M. Shaplin and J.A.F. Sokoya



BOOK PRODUCTION MANAGER

D.A. Ologunde (Sitting)

Surrounded by L to R: Mr. J.O. Adebambo, Prof. A.B. Fafunwa and Prof. Bisi Afolayan



SOCIAL & CULTURAL STUDIES' WRITERS AT WORK: L to R Mr. J.F. Lawuyi, Mr. J.O.B. Adebambo and Mr. M.A. Makinde



YORUBA MATHEMATICIANS AT WORK:
Mr. A.M. Laosebikan and Late Professor Bukola Osibodu



SYPP "PRESS"



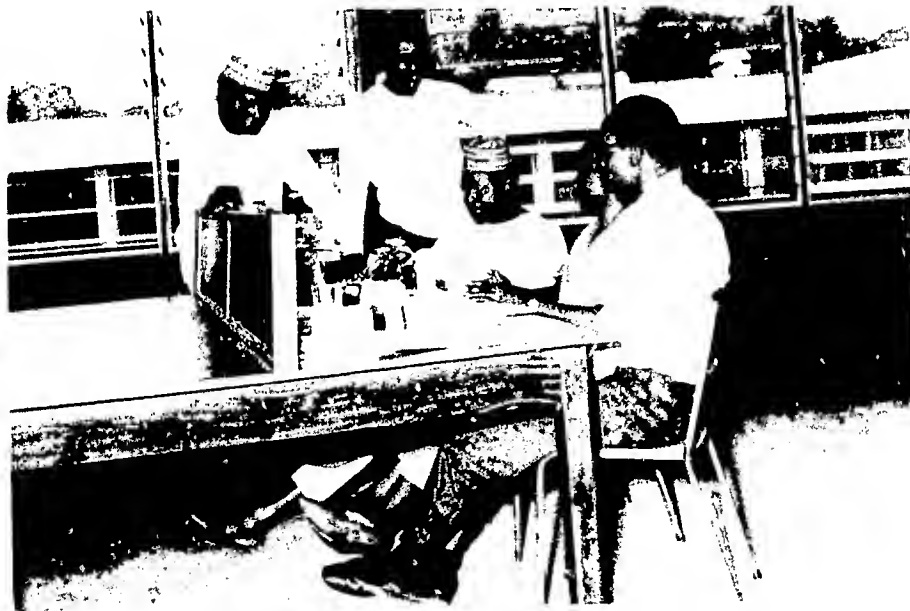
OPENING SESSION OF THE 1971

Writing Workshop: Address by the Director of the Project, Professor A. Babs Fafunwa flanked by I to R Prof A. Afolayan & Mr J.A.F. Sokoya



ENGLISH PANEL

Extreme left: Former Governor Tunji Adebayo and
extreme right is Professor Juliet I. Macauley.



SCIENCE PANEL

L to R: Prof. A.B. Fafunwa, Prof. Tunde Yoloye, late Mr. A. Adigun,
Mr. J.O. Odeyale and Chief J.L. Winjobi.



Late Chief I.O. Delano at work at the Ife Six Year Primary Project.



Three Professors in Consultation at one of the Workshops:
R to L: Fafunwa, Yoloye and Abiri.



Secretariat Staff 1970

is the possibility of transfer of skills; for example, all the basic language skills of visual perception and discrimination, auditory perception and discrimination, concept formation and sensory experiences are transferable from the mother tongue experience to the second language, thereby making the learning of English faster and more interesting.

Furthermore, the Project also had the policy that pupils should learn to read first and well in Yoruba before they are made to read formally in English. This was to avoid undue pressure on the pupils and to further strengthen their transfer of skills. With this background therefore, it was imperative that there should be good co-ordination between the training for and the teaching of the mother tongue, Yoruba and English as a second language.

Regular On-The-Job Training

In order to facilitate the correct use of the curriculum materials, regular demonstrations and guidance were given to teachers while they were teaching in the classroom. Project supervisors observed them teach the content while notes were made of errors or malpractices as the case may be. The teachers later held discussions with the supervisors as to how such lessons could be improved. Whenever it was necessary, the specialists in the subject area who had participated in the writing of the texts were invited to the classroom to give demonstration and other assistance needed.

This process also gave the writers the opportunity to observe classroom interactions for formative evaluation of the texts, the pupils and the teachers.

Evaluation Workshops for Teachers and Other Participants

These were organized regularly by the consultant evaluator and his team. The workshops were directed at every participant of the Project. Writers were trained to incorporate formative evaluation processes in their texts. They were also taught the processes of summative evaluation. Supervisors were trained to evaluate text and teacher effectiveness, pupil performances as well as the programme itself. Classroom teachers were taught to apply constant formative evaluation as they taught and they also learned to participate in the summative evaluation at terminal points of the Project.

These workshops served many useful purposes. Not only did they bring the curriculum developers in close contact with the realities of the classroom events, they also helped to establish a unique system of formative evaluation which did not exist in the Nigerian primary school prior to the commencement of the Project. The officers of the Ministry of Education were also invited to participate in these workshops. This gave them a chance to implement the new approaches to teaching and testing in the generality of primary schools in the State.

Special Workshops for Introducing New Materials

Annually, when new texts were ready for the classroom, workshops were conducted for the purpose of ensuring that teachers could handle the full complement of

texts. The text writers and project supervisors went through each stage of the materials with the teachers, putting them through the units and lessons step by step. Teachers would have learned to prepare visual aids and other supportive materials during the summer writing workshop. At this special workshop, they learned to use both the visual aids and the texts through a co-ordinated process. During this exercise, problems which arose could be attended to immediately, thereby reducing possible incidents of conflict or confusion in the classroom.

Long Vacation Workshops for Text Writing and Teaching Methods

Each of these workshops served as a training period for the teachers. Through working co-operatively with the text writers, though they themselves were not writers, they learned to understand the process of grading and staging in language text writing. They got to understand why specific language items were taught as well as how and when they should be taught. Their experiences in the classroom guided the decisions on the quantity of content to be taught at each given stage. For example, the teachers were responsible for testing each new text material in their respective classrooms and for providing feed-backs on problems and difficulties encountered by the children and these always led to re-writing of text materials by the respective writing panels of which the teachers were members. They were indeed expert advisers to the university cum college of education subject-matter specialists in Social and Cultural Studies, Science, Mathematics, Yoruba and English. As the texts were written and re-written, teachers learned to prepare notes for teaching them as well as the appropriate visual aids for making lessons more interesting and easier to assimilate. Writers had the opportunity to supervise the teacher's assignments and to teach them how to teach other teachers in the school system these innovative approaches to learning.

Short Overseas Training

As part of the training programme for the Project, teachers were sent to the United States for a period of six to eight weeks during the long vacation, for intensive training under the tutelage of the Ford Foundation Consultant to the Project. Teachers were selected for the course on the basis of their competence and interest in the Project. The courses were conducted through lectures, observation in schools, and seminars at the selected Universities. Subjects and topics covered were as follows:

- mother-tongue teaching methods,
- group and individual teaching,
- classroom organization,
- remediation of learning difficulties,
- the teaching of English as a second language,
- the teaching of Social Studies,
- the teaching of Mathematics and Science and
- the evaluation of Language Achievement.

These teachers were expected on their return, to be more effective in the classroom and to serve as resource persons at Teachers' Resource Centres in the State.

Long-Term Training Plan

Since it was envisaged that the new curriculum designed by the Project organizers would be adopted in the entire system of education in the State Schools, it was resolved to build up a reservoir of competent teachers who would be able to meet the new challenges when the programme became the State curriculum in primary schools. Consequently, the University of Ife, Institute of Education injected into its one-year Associateship Diploma Programme such courses as would equip the Diploma students to meet the teaching requirements of the new curriculum.

The training of teachers was a major activity in the Project. It was a continuous exercise; and apart from the well-defined programmes such as described above, the Project also made provisions for training 'on demand', and for evaluating activities to ensure a high standard of efficiency in all the operations.

VI

Teaching and Learning Situations

Classroom Guidelines for Both Experimental and Control Classes

At the beginning of the Project in 1970, policies were formulated to serve as guidelines for class organizations in both control and experimental classes as follows:

- (i) teachers in both control and experimental classes should be Grade 11 Certificated and experienced teachers;
- (ii) teachers should be allocated to the classes without any bias. In other words, the better teachers should not be assigned to the Experimental classes alone. Both classes should have an equal balance of experienced and competent teachers;
- (iii) teachers should show willingness to work hard, accept new approaches to teaching and co-operate with the Project organizers;
- (iv) teachers should be receptive to change and should also be well suited to lower primary teaching. (For example, a teacher was removed from the Project at the initial stage because of her inability to relate to children);
- (v) teachers should be willing to participate in Workshops and in-service-training programmes;
- (vi) teachers should be capable of making correct and imaginative use of Project materials.

The degree of their contribution by way of feed-back on materials used would be considered in determining their retention on the Project.

Integration of Learning Areas Through Improved Time-Tabling

The Time-Table for teaching was re-designed to accommodate the new learning areas and to integrate isolated activities into related subject areas. The subjects listed below reflect the contents of the old and new Time-Tables.

Old

Religious Instruction
Physical Exercise

New

Religious Instruction
Physical Exercise

Arithmetic
 Yoruba
 English
 Spelling and Dictation
 Writing
 Nature Study
 Hygiene
 Gardening
 Arts and Crafts
 Singing
 Geography
 History
 Civics

New Mathematics
 Yoruba Language Arts
 English Language Arts
 English Language Arts
 English Language Arts
 Integrated Science
 Integrated Science
 Integrated Science
 Arts and Crafts
 Traditional Music
 Social and Cultural Studies
 Social and Cultural Studies
 Social and Cultural Studies

Where subjects were integrated for more meaningful learning, the syllabuses were designed to ensure the acquisition of required skills and concepts through properly structured interrelated activities and exercises. With the new time table, each class teacher did some reorganizing of work plan and emphasis was placed on integrated learning. Each class teacher was responsible for the teaching of every subject in his or her class, except English in the Experimental classes, which was taught by a specialist teacher of English. The free periods thus created for the experimental class teachers by their not teaching English, were utilized in understudying the specialist teacher's approach to language teaching. Furthermore, such teachers also served as substitute teachers whenever any teacher in the Project was unavoidably absent. Such periods were also used, in part, for the preparation of visual aids.

Teaching of Subject Areas

As highlighted earlier, it was the policy of the Project that the teaching of all subjects would be carried out in Yoruba in the experimental classes from Primary 1 to 6 while English was to be taught as a second language from Primary 1 to 6. In the control classes, the teaching of all subjects was to be done in Yoruba only up to Primary 3. Thereafter, all subjects would be taught in English, with Primary 4 serving as the transitional stage. English was also to be taught as a second language from Primary 1 to 6 in the control classes.

The general approach of integrated learning with systematic development of concepts was encouraged in all the learning situations of the different subject areas. To this end, detailed instructions were provided in all the teachers' guides and teachers were encouraged to prepare and use the accompanying visual aids. Practical work and home assignments were also supervised carefully. These ranged between science activities and Social Studies Projects. Since this Project focuses on the effects of language medium on learning, more details will be presented later in this chapter on the

learning and teaching situations with respect to the Yoruba Language lessons, and the English Language lessons in particular, than on the other subject areas. Some highlights will however be presented on the teaching and learning of Social Studies, Mathematics and Science, while the major innovations in these three subject areas will be reflected in the development of the new curriculum and texts for these areas.

Social and Cultural Studies

As mentioned earlier, this was a new area of learning for the primary school child and the teacher. It was aimed at creating in the children an awareness of the existing social and cultural norms and of the need to respect them. It also sought to help the children develop a systematic understanding of their social and cultural environment and to help them develop skills, behaviours and attitudes needed to meet the ever changing demands of society.

The learning situations were enjoyed by the pupils and teachers alike because the contents were meaningful to them and also served as the child's source of contact with a world beyond the walls of the classroom. The scheme of teaching started with the child's home environment, school, and community and carried him through the larger community to the country and later on, the outside world.

Parents and guardians were given the opportunity to participate in their children's learning through the supply of information and materials for class work and group Projects. The classroom interactions in the experimental classes where the Yoruba medium was used in Primary 4,5 and 6, reflected a good flow of discourse and lively questioning. Pupils participated freely and extensively, verbally and in their written work.

Since the greater proportion of topics in Social Studies at the primary level are not only localized but are also culture — bound, the pupils showed evidences of learning more and enjoying their lessons better through the Yoruba medium. This assertion was confirmed by the various results of achievement tests given to the Project pupils. (See the section on Evaluation).

Social Studies has been seen on the Project as a subject which has given the pupils, especially the experimental group, a unique opportunity for extensive language development and enrichment, with a deeper understanding of their cultural heritage. This was particularly evidenced in topics related to traditional ceremonies and cultural practices.

Integrated Science

The teaching of science through the Yoruba medium generated a great deal of controversy. Hitherto, science had been taught in Nigeria through the English medium. However, classroom experiences had shown that quite often, difficult language structures and unfamiliar lexical items were an impediment to knowledge acquisition and the understanding of basic scientific concepts.

During the development of textbooks, in Yoruba, it had been agreed that vocabulary would be extended through coinage, borrowing and extension of referential coverage. This principle made the development of texts and the learning of the subjects easier and more enjoyable. Because the teachers were teaching through the mother tongue, they exhibited greater confidence and knowledge of their subject. They reported at some of the workshops that they found it easier to understand the Teachers' Guides and for the first time, 'experiments in science' meant something to them.

Several video tapes were made of classroom interactions on the Project, while both the experimental and the control classes were learning the different subjects. The spontaneous responses and participation from the experimental classes 4,5 and 6 in the teaching of science were reflective of active learning with a better understanding of what was being taught; whereas the control classes reflected passive learning with language inhibition on the part of the pupils. Fewer questions were asked in the control classes and the teachers seemed to be very conscious of language errors, since they were teaching in English. This in itself created a barrier to the expected flow of verbal interaction in the classroom. Furthermore, the responses from pupils in the experimental classes showed that they were able to carry out their home assignments on simple experiments with greater ease and enjoyment because they understood the assignments better and could therefore ask for assistance within their home and community when this was called for.

Mathematics

At the time the Project started the situation with regard to the teaching of Mathematics in the classroom was as follows:

- (i) the teaching of Mathematics was in the hands of the class teacher who in many cases taught Mathematics because he had to and if he had his way, would rather be spared the agony of teaching the subject;
- (ii) the erroneous idea prevalent among teachers that the higher your academic and/or professional qualification, the higher should be the class you taught. Thus in many schools, the lower classes were manned by untrained teachers, and this affected the teaching of mathematics as well as other subjects;
- (iii) at that time many primary school teachers did very little Mathematics if any at all, consequently they did not find it easy to teach Mathematics with understanding. They therefore resorted to formulae and rules. For example, while a pupil could find the simple interest on N500 for 5 years at 10%, the same pupil hardly knew what to do when asked at what rate a naira is lent to yield a kobo a month. The reason for this is that while

he could use the formular $I = \frac{PRT}{100}$ to get the solution to the first question, the second question required a clear grasp of the concept of simple interest which he had either not been taught or at best, taught poorly;

- (iv) academic inadequacy and in some cases lack of professional training on the part of the teacher resulted in a very weak foundation for the pupils, which created in the pupils a dread of the subject;
- (v) there was an over-dependence of the teacher on the text-book and many problems in the textbook became unsuitable, as passage of time had eroded whatever foundation in reality the book might have laid claim to;
- (vi) though the official medium of instruction in Primary 4,5 and 6 was English, it was common to find the teacher interpreting his mathematical questions in Yoruba after writing them in English on the blackboard;
- (vii) it was difficult for the teacher to explain to the pupils in a way that they would understand mathematical concepts, which he himself hardly understood, even when he used the mother-tongue. It was impossible therefore to compel him to do so in a language he could not claim mastery of.

With the above background therefore, the development of the Mathematics texts for both pupils and teachers had to reflect innovative processes. The approach to teaching also needed to be such that learning would be ensured. All of these were achieved firstly through the Teachers' Guide and secondly through the systematic presentation of the lessons.

The major thrust in the teaching of Mathematics on the Project was in the extensive use of activities for the acquisition of mathematical concepts. Through carefully designed exercises and activities, the pupils were led to *discover* solutions to problems rather than being given rules and formulae. Thus the method applied was 'structure-oriented'.

The teaching of a number involves the concept and the name of the number as well as the recognition and the writing of the symbol (numeral) for the number. Here again, the Project ensured that the pupils were introduced to numbers in a simple way and with the use of one language only. With the old method, the child was forced to make three associations thus:

<i>Symbol</i>	<i>English</i>	<i>Yoruba</i>
1	one	<i>ookan</i>
2	two	<i>eeji</i>
3	three	<i>eeta etc.</i>

He was forced to recognize the symbol, then repeat in chorus, the name of the number in English and in Yoruba. With the Project approach, the pupil was led to recognize the symbol and associate it with its Yoruba name only, thus:

1	—	<i>ookan</i>
2	—	<i>eeji</i>
3	—	<i>eeta</i>

The English names for numbers were learned during the English lessons. This not only removed the confusion that usually existed, it also made the acquisition of number concept easier once the second language element was removed. Critics of this method expressed the fear that pupils would have difficulty switching to English at the secondary level of education. Though it was expected that all the Project children would need a period of transition at the beginning of secondary education, in all subject areas, it was discovered later from evaluation reports that the emphasis placed on the latent problems of language switch at the secondary level was grossly exaggerated. The Evaluation Chapter gives actual results of pupils' achievements at different levels of the Project.

Yoruba

Language acquisition and development were given a great deal of attention on the Project. Since Yoruba was to be used as the medium of instruction, teachers were trained to teach Yoruba as a first language and to use it as a medium of instruction. They were taught to distinguish between the teaching of a first language or mother-tongue and the teaching of a second language. Through the competences thus developed by the teachers, pupils were able to develop creative use of the Yoruba language. This skill was particularly needed with Yoruba as the medium of instruction for the entire 6 years of primary education.

Teacher's Use of Yoruba As a Medium of Instruction

The Project did not assume that the teachers could teach through the Yoruba medium effectively simply because they were native speakers of the language. It was common knowledge that the early methods of bilingual education used in Nigerian schools unfortunately did not promote sufficiently the systematic and creative development of the mother-tongues. Project teachers were therefore given training in the use of Yoruba as a medium of instruction so that learning situations may yield high pupil-achievement. During the course of training, emphasis was placed on the learning processes below:

- (i) teachers were warned to be careful in their choice of words and expressions in the process of teaching. It was observed in the early stages of the Project that when teachers taught freely in the mother-tongue and had no language inhibition, there was the tendency for some of them to resort to the use of bad language in class when they were angry with the

pupils. Stress was therefore laid on the fact that children imitate adults, especially in the use of language, and teachers must serve as good models within and outside the classroom;

- (ii) teachers were taught how to use creative language with the correct application of appropriate Yoruba proverbs and idiomatic expressions because these are part of the linguistic qualities of the Yoruba language;
- (iii) teachers were constantly reminded that utterances must always be within the level of understanding of the pupils. Whenever new vocabulary or concepts were used in the process of teaching and these happened to be outside the body of knowledge in the lesson being taught, teachers must be careful to explain so that pupils' learning may be enriched and not frustrated;
- (iv) since the use of the mother-tongue was observed to be devoid of language inhibition, teachers were taught to encourage questions from their pupils and to create stimulating verbal interactions during the lessons in order to promote maximum learning;
- (v) teachers were taught to write their lesson notes in Yoruba so that they might think out their lesson presentation in the language they were to teach it, thereby creating enriched learning environment with pure language usage;
- (vi) when teaching the other subjects — mathematics, integrated science and social studies, correct registers were to be used at all times and in Yoruba language only. There was to be no code switching in any form. Teachers were therefore taught to work closely with the subject writers so that they might acquire the new concepts being introduced as well as the appropriate labels for them.

With the training received, the teachers were able to use the Yoruba language more efficiently. They were more articulated and their lessons were more rewarding. Furthermore, both teachers and pupils enjoyed the lessons better. When teachers were first instructed to write their lesson notes in Yoruba, they had great difficulty; but with training, they progressively found it easier and more rewarding.

Teaching Yoruba As A Subject

Here also the Project teachers were given intensive training. They learned that there was a measure of difference between teaching a mother tongue as a subject and teaching a second language as a subject. They learnt that when the children bring their language to school, they already have a basic foundation for intensive oral language development which is a major pre requisite for reading.

A. *The Reading Readiness Programme*

A great deal of emphasis was placed on reading readiness in the first year of school on the Project. The scheme was carefully designed to prepare the children for

general learning and for reading. A decision was taken by the language specialists of the Project that the pupils should be helped to read in Yoruba before formal reading began in English, for the reasons described below:

- (a) when basic readiness skills have been acquired through the mother tongue, they are transferable to another language, thus making reading in that other language easier and faster. These related in particular to the following skills:

- Visual perception and discrimination
- Auditory perception and discrimination
- Concept formation
- Sensory awareness
- General listening skills
- Oracy
- Left to right progression and
- Space awareness.

Provision was also made for additional readiness exercises in the English class to take care of the fine points of discrimination which could cause negative transfers as a result of phonic and structural interferences from the mother tongue;

- (b) preparing the child to read first in the mother tongue, allowed for the use of the Language Experience Approach to reading. This is where the child learns to link his speech habit with reading, thereby making the simple but unique discovery that reading is recorded speech;
- (c) initial reading problems could be spotted and rectified at the readiness stage before growing into more serious problems;
- (d) motivation for reading generally could be stimulated through initial mother-tongue reading because the child would be reading meaningful and interesting contents which are related to his experiences and environment.

Teachers were trained to implement the reading readiness programme and adequate materials were provided, and they were also taught to produce visual aids of many varieties out of cardboard, objects, odds, and ends. Emphasis was placed on the extensive development of the listening skill, particularly the analytical level of listening which is vital for auditory discrimination. With Yoruba being a tonal language, it was important that pupils should be trained carefully, not only to identify and produce the sounds of their own language — Yoruba correctly, but also to accommodate the sounds of the English Language.

B. *Developing The Language Arts — Yoruba*

The four skills of Listening, Speaking, Reading and Writing were developed extensively during the Yoruba lessons. Strong points were made of the special quality and characteristics of the Yoruba language and environment. These were integrated in the teaching processes and classroom interactions as reflected in the four language skills below:

(i) *Listening and Speaking*

Teachers were reminded that the Yoruba culture had a very strong oral tradition and this should be tapped generously in developing pupils' creative speaking habits. Furthermore, their attention was drawn to the most unsatisfactory, unstable bilingual situation in the average classroom, which created adults who could not speak pure Yoruba language without code switching or without interjecting their utterances with English words now and again.

The child was expected to develop within and not outside his cultural heritage. Thus, the Project teachers were taught to select all positive elements of learning in traditional teaching. In the development of listening and speaking skills therefore, pupils were helped to develop:

- (a) the ability to listen attentively in order to reproduce correctly what was heard;
- (b) the ability to listen analytically to discriminate between the various sounds and utterances heard;
- (c) the ability to observe situations carefully and critically and to describe them with appropriate words;
- (d) the ability to think deeply and analytically and to apply appropriate traditional proverbs to buttress meaning during discourse;
- (e) the ability to reflect and to relate simple events in life to existing facts in nature and to use the correct words in expressing this;
- (f) the ability to use descriptive words and expressions which not only carry accurate meaning but demonstrate creativity as well.

Oral composition and story telling were important activities during language lessons. The verbal interactions reflected active pupil participations. Discussions, dramatizations and role play were also important activities during the lessons. Short poems (EWI) were also used frequently.

(ii) *Reading and Writing*

Reading and writing were introduced to the pupils as an integrated process. During their oral exercise, pupils had been receiving lessons in mechanical writing. By the time they were ready to read therefore, it was

possible to introduce both reading and writing through the Experience Story Approach. With this method, pupils related their experiences whether as a group or as individuals in short and simple sentences. The teacher would write each sentence on the board for group story, or on paper for individual story. The story might run to five or six lines for a start.

The teacher would read each sentence slowly back to the class. Next, the class or pupil would read the story with the teacher slowly, then finally, the pupil would read it by himself, and in the case of a group, collective reading was done.

Project reading texts were very carefully graded with introductory picture and word/picture books as part of the reading readiness exercises. The content of readers were varied but they were all related to the pupils' experiences and environment. Class libraries were established to promote extensive reading habits. The invisible library system was also encouraged. Pupils were requested to buy one or two books from a list provided by the class teacher. Pupils then exchanged these with their classmates and each pupil thus had an opportunity to read at least 15 or 20 other titles besides the one he/she provided. This system encouraged reading and discussions.

In order to provide adequate reading materials for the lower classes, the pupils in the upper classes of primary 5 and 6 were encouraged to write short stories for pupils in primary 2, 3 and 4. Teachers were also encouraged to write stories for the children because it was discovered that there was a dearth of suitable Yoruba supplementary readers.

Written composition was also given a great deal of attention on the Project; because pupils and teachers tended to associate the Yoruba language with oral tradition, deliberate efforts had to be made to train the teachers to teach and grade Yoruba written composition. The same processes and content for the creative development of oral language was used for the development of creative writing skills. In addition to written composition, extensive exercises were also given in other areas of the language arts, such as grammar, word usage and various forms of communication, including letter writing.

C. The Remedial Programme

Since the Project placed a great deal of value on reading, it was considered necessary to develop a remedial reading programme where initial reading problems could be identified and rectified. This unit later grew into a larger programme for the remediation of general learning difficulties.

The remedial programme was designed in Yoruba since it is the child's mother tongue. Pupils of the lower primary classes, that is, classes I to III, who had difficulties with reading were sent to the unit. The process involved the following:

- (a) careful diagnosis of each pupil's specific difficulty;
- (b) grouping of pupils with the same type of difficulties;
- (c) designing appropriate exercises for remediation.

A good percentage of the reading problems could be traced to insufficient readiness for reading. With few others, the difficulties arose as a result of emotional problems. For those who were not sufficiently ready, the greatest areas of problems tended to be visual and auditory perception and discrimination. Enquiries and observations revealed that the degree and quality of readiness demonstrated by the pupils depended not only on the exposure they had to a structured readiness programme at school, but also on the type of home background they had. Those who were sent to the remedial unit tended to be those whose home environment offered little or no stimulus for initial reading.

D. Yoruba As A Springboard For English

The Yoruba readiness programme gave pupils the opportunity to develop basic reading skills at a faster rate than they would have done if they had attempted it initially through the English medium. Furthermore, since reading began first in Yoruba, initial difficulties were spotted and worked upon to minimize the event of negative transfers. Nevertheless, there were some areas in which negative transfers occurred. These will be discussed later.

On the positive side, the greatest skill pupils acquired and used to advantage was *AWARENESS*. They became more aware of things and symbols with their similarities and differences; of sounds with their similarities and differences; of their senses and how to describe the related experiences. These they transferred readily into the second language and merely sought for new labels. Confusion tended to arise in situations where a particular concept had not been properly grasped or awareness had not been acquired.

English as a Second Language

The two languages used in the experiment, that is, Yoruba and English, were assigned specific roles in respect of the control and experimental groups. This was in consonance with the objectives of the Project as stated in the first chapter of this book. The roles were also clearly defined in order to test two of the hypotheses which stated that:

- (i) the child's command of English would be improved considerably through the teaching of English as an entirely separate subject by a specially trained teacher, using appropriate and adequate second language materials;
- (ii) at the end of six years, there would be no significant difference between the English Language achievement of the experimental group who used

Yoruba as a medium of instruction for the entire duration of six years, with English taught only as a subject, and the control group who used Yoruba as the medium of instruction for three years and English for the remaining three years, with English taught as a subject for six years. (See table below):

Table 8: Language Roles

GROUPS	PRIMARY CLASSES 1—3	PRIMARY CLASSES 4—6
EXPERIMENTAL	Yoruba Medium of Instruction English as a Subject	Yoruba Medium of Instruction English as a Subject
CONTROL	Yoruba Medium of Instruction English as a Subject	English Medium of Instruction English as a Subject

(a) English Language Roles For The Experimental Group

- (i) English was to be taught as a school subject for the role of immediate, correct and coherent communication, as well as a subsequent use as a medium of instruction at the secondary level of education.
- (ii) English lessons were to perform the additional role of medium servicing for all the other subjects which were taught through the Yoruba medium. This meant that concepts, registers and language structures which were specific to Mathematics, Elementary Science, and Social and Cultural Studies, would be incorporated in the English Language instructional materials and consequently the lessons.

(b) English Language Role For The Control Group

- (i) English was to be taught as a school subject for communication and in preparation for its effective use as a medium of instruction at the primary level.
- (ii) English was to be used as a medium of instruction from primary four to six, to serve as reinforcement and preparation for its continued use at the secondary level of education.

(c) Implementation of Roles

Prior to the assignment of language roles, studies had been made of actual classroom practices in primary schools. Results had revealed the following problems:

- (i) poor teaching, unsatisfactory models and the inadequate supply of language instructional materials made pupils go through the painful process of learning and unlearning incorrect language habits;
- (ii) the unstable bilingual situation in which the teacher switched back and forth between the use of English and the mother tongue caused confusion in concept acquisition;
- (iii) there was an overwhelming percentage of primary six pupils who were not completely literate in either English or their mother-tongue, Yoruba, at the end of their six years primary education.

These findings drew attention to the need to ensure a stable bilingual situation for the learner, in which the two languages (Yoruba and English) are introduced into the learner's environment in such a way that the two are clearly separated in their related roles, their utility and their usage. This then became the primary objective of the language role assignment.

In order to implement the assignment of language roles effectively and to ensure some measure of linguistic stability, the following principles were introduced:

- (i) English was to be taught systematically as a distinct subject with its own culture;
- (ii) special attention was to be paid to possible areas of cultural, structural, phonological, and contextual interferences between English and Yoruba;
- (iii) English was to be taught with pure usage. This meant that there should not be any substitution of lexis, phrases or total utterances from Yoruba to English or vice-versa. There should be no codeswitching during the English lessons;
- (iv) correct and appropriate lexis and expressions should be used at all times in respect of the two languages;
- (v) where occasion called for an explanation of a concept which does not exist in the English Language but does in the Yoruba Language, caution should be exercised and words should be carefully chosen in explaining meanings to the pupils, so as to avoid confusion. Where the concept is highly specialized, the language in which the concept exists should be used briefly to explain meaning to the pupils;
- (vi) through the teaching processes, pupils must be helped to understand that there are some concepts and interpretations of meanings which exist in one language but not in the other. Each language must be seen as a separate whole and should be learned thus.

The role of English in the Experiment was not only clearly defined from the beginning of the Project, but was also greatly emphasized, because the public had erroneously assumed that English would not be taught at all in the experimental clas-

ses, since Yoruba was being used as the medium of instruction in these classes. This assumption was carried to the extent that some parents were apprehensive about their children being assigned to the experimental class. However, by the time the Project had been in operation for three months, it became quite apparent to such parents, through their children's spoken English, that English was being taught and more effectively too.

In order to meet the objectives of the Project, measures were taken to ensure good classroom interaction. These included:

- (1) increased periods of English per week;
- (2) clearly defined mode of pupil participation;
- (3) use of specialist teachers of English;
- (4) specified mode and degree of teacher involvement;
- (5) emphasis on extensive and intensive reading with particular attention paid to reading readiness in English, and finally,
- (6) remedial exercises for English.

Increased Period of English Per Week

In respect of the experimental and control groups, it was decided that more periods should be spent on English than is done in the average primary school. The time table was therefore reblocked to include two additional periods per week for classes I and II; three additional periods for classes III and IV, and four additional periods per week for Classes V and VI. At the lower level of classes I, II and III, the Project maintained the same number of periods for both the experimental and control groups. In the higher classes however, the periods differed since the control group were adhering to the State language Policy of English medium in the last three years of primary school.

Active Pupil Participation

The need for active pupil participation was highly stressed on the Project because it was believed that language should become a habit for the pupils to use it functionally. Consequently, the extensive use of dialogues for practising learned structures and sentence patterns; role play and dramatization of real life situations were all structured into the English course for enriched classroom activities. Language games were also used generously for reinforcing the different units of language learned.

Pupils were able to experience joy in the process of learning and were thus motivated to learn more and to remember what was practised over a period of time. Hitherto, pupils tended to forget very easily because it used to be a process of rigid drills, where pupils merely learned to repeat specific sentence patterns in response to set cues within the classroom environment. The moment situations changed or the format of the cues were altered, pupils tended to be at a loss.

The process of dialogues, dramatization and role play created good opportunities for the pupils to work in groups and in pairs, thus giving meaning and creativity to their participation. Every English lesson became an event and a period of doing things with language. Sentence patterns were not just repeated in parrot fashion, they were put into functional use. Drills were used with substitutions for pattern practice and these exercises were done only after the pupils had grasped the concept of the structure.

A great deal of emphasis was placed on good concept formation, both as part of the readiness exercises, and as a continued process in language development. The pupils on the Project demonstrated through the competence achieved, that when the concept associated with a grammatical structure is clearly understood, all related sentence patterns are more easily understood and remembered.

Use of Specialist Teachers of English

The original Project proposal specified the use of specialist teachers of English for the experimental classes with the class teachers teaching all the other subjects. In the control classes, the regular classroom teachers were to teach all subjects including English. This recommendation was made because of the need for the careful structuring and systematizing of language teaching in the experimental classes where the medium of learning was to be Yoruba, and English was to be taught as a subject only for the entire duration of six years.

These specialist teachers of English were so designated by virtue of the training in Language teaching which they received through the Associateship Diploma Course in Pre-Primary and Primary Education, at the University of Ife, Ile-Ife. The training emphasized the correct methods of teaching the mother tongue — Yoruba in this case, and English as a second language. This covered carefully structured training in these two languages both as subjects and as tools of teaching and learning.

During the first year of the Project, the State Ministry of Education paid official visits to the school in order to evaluate the Project. The Ministry commended the Project on its achievement, particularly on the pupil's command of English. However, the report reflected the Government's objection to the use of specialist teachers of English on the following grounds:

- (i) specialist teachers were not usually employed for the primary level of education because the Government could not afford the cost of maintaining them;
their use at this level created a privileged work situation and suggested a
- (ii) staffing policy which the Government could not accept at that point in time;
- (iii) specialist teachers could not be replicated fast enough all over the States and there was the likelihood that even if this were possible, they would be under-utilized in some schools. This would amount to a waste of money and human resources.

In response to the issues raised above, the Project organizers put forward the proposals below:

- (a) the use of specialist teachers could be effected without any additional cost to the Government beyond the adequate training of the teachers meant for primary schools;
- (b) within the framework of each primary school, teachers who had received good training in the teaching of language, that is, English and Yoruba, should be assigned to teach these subjects in addition to holding their own classes. They would then be relieved of some periods which would be taken by the teachers whose classes were being taught Yoruba or English. This would set off a system of team teaching;
- (c) where this was not feasible, each class teacher should be given in-service training in the teaching of English and Yoruba.

As a result of these issues raised, the proliferation exercise of the Project was undertaken with the use of class teachers for all the subjects including English. As recommended in (c) above, the class teachers were given intensive training in the teaching of English as a subject and the use of it as the medium of instruction. This was of course training on the job. Evaluation of the Project pupils revealed that in the proliferation schools, all the experimental groups performed significantly better in English than the control groups. However, in the pilot school where specialist teachers were used, the experimental groups performed significantly better than the experimental groups of the proliferation schools. This showed that there is some value in the use of specialist teachers.

Specified Mode and Degree of Teacher Involvement

Teachers of English were made conscious of the fact that their lessons would need to be carefully prepared and systematically presented. They would need to make appropriate visual aids and use them correctly. They would need to record points observed about the pupils' progress and problems as the lessons were covered. They would need to participate in the development and evaluation of teaching and learning materials. They would also be expected to give feedback comments on classroom events in respect of language teaching and any intervening variable which was not previously envisaged but which had to be coped with nonetheless. To this end, teachers were provided with books for entering such comments.

Since teachers had been trained to handle the various instructional materials correctly, they were expected to use them maximally so that the pupils could benefit from them. Unlike the average primary school where pupils hardly had enough books, the Project ensured that an appropriate and adequate number of books were placed in the hands of the teachers and the pupils. Pupils wanted to explore the books. This placed greater responsibility on the teachers because it meant ensuring that the books were well used and carefully handled by the pupils. When a pupil lost a book, he was made to pay a little sum toward cost of replacement.

One of the major responsibilities the English Language teacher had was that of ensuring that the correct staging of the learning process was adhered to. For example, the Project had the policy of extensive oral exercises to promote the functional use of oral English and to prepare pupils adequately for reading with good comprehension. But, because reading normally started a few months earlier in the average primary school than was recommended on the Project, a great deal of pressure was brought by the parents on the teachers, for reading to begin at the usual time. Teachers had to be encouraged by the supervisors to abide by the Project policy until the extended oral language scheme could be proved superior. When the first set of pupils eventually began to read and they proved to be efficient and avid readers, the parents relaxed their pressure and the teachers felt more confident to continue with the scheme.

Emphasis was Placed on Reading with Comprehension

During the training of the English Language teachers, great emphasis was placed on reading with comprehension. To achieve this, the programme recommended a reading readiness process with extensive exercises in visual and auditory perception and discrimination, concept formation, sensory awareness, experience stories, dialogues, role plays, dramatization and language games. These activities were to be done extensively in the Yoruba lessons and then reinforced in the English lessons.

Reading in Yoruba was also designed to begin before reading in English.

This foundation made it possible for the pupils to read with greater ease and understanding and to develop an interest in reading. In the Project classes, the pupils were known for their passion for reading. This habit was still evident in a good percentage of them at the secondary school level, as evidenced in the report of the follow-up studies.

Remedial Exercises For English

As with the Yoruba programme, the remedial exercises for English were closely related to the reading readiness exercises. With each problem identified, traces were made to the original steps which were designed for developing the specific skill, beginning with the very elementary step.

It was discovered that some of the problems occurred as a result of negative transfers or interference between the first and second languages. For example, negative transfers occurred in the areas of:

- (a) sound
- (b) structure and
- (c) meaning.

These were evident in their speech, spelling of words, particularly in dictation exercises and in the formation of sentences. In the area of sound, the Yoruba child often has difficulty with consonant clusters mainly because the sound arrangement of his language consists of consonant vowel (cv) with neither clusters nor diphthongs graphs. As a result, he tends to interpose a vowel between consonant clusters. For example he says: *sikip* instead of skip; *diro* instead of draw.

Quite often also, his problem is poor visual perception, reversals or substitutions. For example the following were identified as common problems for which pupils received remedial exercises:

Table 9: Common Problems for which Pupils received remedial exercises

English	Yoruba	Problem
is	<i>si</i>	reversal, caused by visual similarity of form.
in	<i>ni</i>	reversal, visual and conceptual similarity of form and meaning.
me	<i>mi</i>	auditory, visual and conceptual similarity of sound and meaning.
come	<i>kome</i>	substitution of symbols due to similarity of sound.

In the middle classes of primary III and IV, some common problems were also identified as being the result of interference, and for these appropriate remedial exercises were designed. For example, pupils had problems with noun and verb concord. This is possibly due to the fact that in the Yoruba language, there is no structural change to the noun or verb to indicate singular or plural number. In the case of verbs, there is also no structural change of nouns or tenses in the case of the verbs to indicate past or present tense. Rather, it is an addition of a qualifying word or groups of words which indicate what is intended. For example:

1
English

1. The boy is playing
2. The boy was playing
3. The boys are playing
4. The boys were playing

2
Yoruba

Omokunrin naa n sere
Omokunrin naa nsere
Awon omokunrin naa n sere
Awon omokinrin naa n sere

The examples given above show that in the Yoruba language, the noun and verb remained constant, while the nouns and verbs in the English language went through structural changes. In the last two sentences of column 2, the word (*Awon*) indicates plural. With this type of problem, remedial exercises took the form of substitution tables, sentence card games and dramatization of relevant situations.

The Teaching Process

The teaching process is best described through the presentation of skills developed, materials used, the teaching methods applied and the testing procedure adopted as shown below:

Table 10: Teaching Process

Skills Developed	Materials Used	Teaching Method	Testing Procedure Formative in Nature
1. Oral use of English Language for easy communication and oral/aural comprehension.	Teacher's Guide specially prepared for the Experimental group Books 1-6 contained detailed instructions and guidelines for various activities. Teachers own collection of common objects, pictures and children's own experiences which could stimulate conversation in class.	Teachers were expected to follow the guidelines in the teachers' books, the procedures outlines contained activities that not only gave knowledge but promoted understanding and encouraged applications. Activities ranged between dramatization, role play, language game, dialogues, debates and impromptu speeches in class.	Oral tests were planned and administered individually. This usually spread over a couple of days. Test items covered all areas of skills taught and they tested for the different levels of mastery that is, knowledge, understanding, thinking, and application. Results of tests were examined and remedial exercises were planned accordingly, thus effecting formative evaluation.

Skills Developed	Materials Used	Teaching Method	Testing Procedure Formative in Nature
2. Reading with comprehension at different levels	1. English course Reader 1-6. 2. Supplementary readers 3. English version of the texts written for other subject areas: (a) Science (b) Social-Studies 4. Comprehension Texts and Exercises. 5. News papers.	Teachers were expected to read the special notes to the teachers' guide which gave suggestions of ways of conducting reading exercises, developing interest in reading and achieving comprehension. Emphasis was placed on silent reading for speed and better comprehension. The process used by the teachers was expected to ensure that pupils' comprehension reflected not only knowledge of facts but also understanding of content with the ability to apply what is gathered from the content to other situations.	Pupils were tested in oral reading and silent reading with accompanying comprehension questions. Extensive reading was encouraged and spot testing of pupils' comprehension of the supplementary readers covered was also encouraged. Sometimes pupils were asked to talk about a section of a book or story they had read.
3. Writing: (a) Composition (b) Simple. Creative Essays (c) Correspondence (d) Filling of forms Application for jobs. (e) Note taking	Project Teacher's Guide Teachers own collection of themes and interesting topics Guidelines contained in the course books. Day-by-Day Revised version.	Teachers were expected to encourage writing by creating a stimulating atmosphere and providing the class with varied experiences about which they could write. Teachers were advised to create sensory awareness in pupils and help them to develop the language skills for expressing what they could feel, taste, smell, see and hear. Teachers were expected to give guidelines and varied exercises in letter-writing and form filling. Practices in note taking were given during class debates and class projects: for example, visits to interesting places were carefully described and documented.	Pupils were given topics to write about and these were assessed through specific language skills e.g: Correct grammar. Correct punctuation Correct capitalization. Appropriate idiomatic expressions. Correct spelling. Good paragraphing Good ideas presented systematically. Correct sentence formations. Creative use of language.

VII

Problems Encountered on the Project

General School Administration

(a) Allocation of Special Duties

As soon as the Project started, it became obvious that special duties would need to be assigned in order to avert or minimize the problems which were beginning to occur. In every way, the school was seen as a normal state-controlled school. However, the Project brought with it many new dimensions of learning and teaching which called for close monitoring.

Special duties were therefore assigned to Project supervisors and the headmaster of the school. The supervisors were charged with the responsibility of ensuring that the curriculum contents were properly taught and that all required materials were provided. The headmaster was to ensure that the teachers attended their classes regularly and covered their teaching periods fully. He was to ensure the security of the teachers' and pupils' texts, teaching aids and the new school library. He was to check and ensure the adequate and correct preparation of the teachers' notes and report lapses to the Project organizers. This was particularly necessary with the notes of lessons which were to be prepared in Yoruba Language. The headmaster himself was trained to prepare lesson notes in Yoruba and to assist the teachers who had difficulty.

(b) Problem with Admission and Allocation of Pupils to Classes

On the first day of the school year in January, 1970, when pupils were being assigned to classes, some parents were most apprehensive about their children being part of the experiment. Two parents categorically stated that they did not want their children in the experimental class where Yoruba was going to be the medium of instruction for six years, and they moved their children to another school.

The fear of the parents was based on the erroneous idea that English was not going to be part of the Project curriculum. But by the end of that school year

however, the situation had changed. Since English was taught, and more efficiently to the experimental group, the pupils' performance convinced the unbelieving parents about the value of the Project.

During the registration exercises in October 1970, for the school year beginning January, 1971, the headmaster and teachers had a most difficult task keeping children away from the Project school after all the vacancies had been filled. Parents abandoned their communities and the schools where they should rightfully have registered their children and travelled quite some distance to register their children at the Project school. Each parent in turn preferred the experimental class.

As many pupils as could be accommodated were registered and an additional three arms of forty pupils each were created in primary one that year. As a last resort, parents were still willing to have their children in the non-Project classes because they felt that having their children in St. Stephens School 'A' would be an advantage as there was bound to be some spill-over of method, content and materials.

There was indeed a 'Hawthorn effect' of the Project on the entire Modakeke Community. This occurred to the extent that the elders of the neighbouring Ife Community sent a delegation to the University requesting that the Project be extended to the Ife local community. Unfortunately, because of the design of the Project as a research study, the request could not be granted and that caused some measure of resentment. The headmaster had to devise a quota system which accommodated some of the children from the neighbouring Ife community and that seemed to effect a settlement. At a later date, the Project was extended to Ife community.

The initial design of the Project was that the children to be admitted for the experiment would be from the socio-economic background of the school environment. When the new dimension of broadening the catchment area was introduced, the school authorities and the Project organizers had to screen pupils for admission so as to maintain the socio-economic level for which the Project was designed.

(c) Problem of Non Admission of Pupils into the Experimental Classes Other Than Primary One.

The Project design allowed for an intake of two arms of experimental classes (A and B) containing forty pupils each and one control class (c) also containing forty pupils. The rationale was that since the experimental group could not have new intake midstream, it was necessary to ensure that at least forty pupils out of the initial eighty would get to the end of the six years of the Project, that is, allowing for dropouts. The control class was allowed to admit pupils at any time of the year in keeping with the Government language Policy.

However, after the first year, the control class began to experience the following problems:

- (i) with the population explosion in the school, parents began to press for their children to get into the control class if not the experimental class;

- (ii) the retention of failures in the control class increased the number of pupils in the class;
- (iii) the Project insisted on a maximum of forty pupils in the class, but the explosion resulted in a class size of forty-five to fifty pupils in each of the additional three classes which were non Project classes.

This situation created a bit of stress among the teachers in the school. It was eventually resolved that all classes in St. Stephens School 'A' would not exceed a total of forty-five pupils per class at the time of registration. The experimental classes progressively got depleted until the two arms got merged into one, at the primary five level.

Before the end of the first year, the Project organizers realized that if only one set of pupils were carried through to primary six, there would be a big problem of validation. A decision was therefore taken to continue a yearly intake until the end of six years. This meant that at the end of that period, the school would have had six full units of Project pupils. This decision gave the Project organizers a unique opportunity for thorough evaluation exercises.

(d) *Storage of Teaching and Learning Materials*

As explained earlier, the headmaster was charged with the duty of keeping safe, all the teaching aids as well as textbooks for teachers and pupils. This was not an easy task because security arrangements in the local schools were very poor. Cupboards were built and an inventory was taken of all the materials. Somehow, materials still got stolen or were borrowed and not returned. Several replacements were made and this became an expensive proposition. Both class and school libraries were established and the headmaster had to work hard to keep the books circulating under strict surveillance. One of the problems encountered with the loaning and non-return of books was compounded by the pupils and teachers of the additional classes created. They would surreptitiously borrow the Projects specially designed texts and would not return them. The result was of course reflected positively in the performance of the pupils; but since this situation was not initially anticipated, the additional cost of replacing materials resulted in a financial strain to the Project.

(e) *Problems Relating to Pupils*

(i) *The First Set of Pupils* — were behind in the schemes of work in all the subject areas. This was due to the fact that the initial development and production of the curriculum materials began with them instead of before them. They constituted the trial group as well as the lead-in group for all the subsequent groups. Instructional materials were used and modified, then returned to the classroom for further trial. The immense insight gained by the Project through working with this first group helped in the process of refining the materials and methods of instruction for all the subsequent groups.

The Project was rather concerned about this first group of pupils because they became a 'Lead-in group' in more than one respect. Apart from being the pioneers of the new curriculum materials, they were also caught by the change of school year. In 1973, when they were in their fourth year of schooling, the school calendar was changed by the Federal Government from January/December school year to the September/July school year. This meant that in that transitional year of primary four, they lost six months of routine school learning.

The Project tried to make up the time with extra lessons during the long vacation period. Efforts were made to cover the syllabus and to instil some confidence in the pupils who were beginning to exhibit symptoms of stress due to the change. While teachers could be given financial inducement and other types of compensation for working the extra hours, the pupils could only be motivated to work harder. This could take the form of providing a happy and pleasant environment which would encourage participation in learning activities designed to ensure positive achievement. The teachers co-operated fully on this. Because of the various problems this Lead-in group had, the evaluation of their achievements was also given special attention. Far reaching decisions were taken on the design of the Project as a result of that first year experience. These are all reflected in the evaluation section of this book.

(ii) *Pupil Mobility*: This was a problem only in the first few months, after which the groups settled down to enjoy the special attention they received on the Project. This attention ranged from the ample provision of learning materials for them, to the long fruitful hours their teachers spent with them. As explained earlier, class population was kept to a maximum of forty pupils per class. However, at the end of the second year, a policy decision had to be taken about the retention of failures in a class particularly in the control classes. The maximum was pegged at five. It was decided that pupils should be assisted to achieve through the process of formative evaluation. Teachers were therefore trained in these processes during the workshop sessions.

(f) *Problems Relating To Staff*

(i) *Staff Mobility*: This also constituted a problem at the beginning of the Project. Appeals were made to the State Ministry of Education to waive the practice of the frequent transfer of teachers to enable the Project teachers remain on the Project to the end. The government was also requested to consider the Project as a special duty for the teachers since it was a longitudinal study for the improvement of education.

As a result of the global approval for the retention of staff at the Project Schools, including the staff at the proliferation Schools which began three years after the pilot Project, and covered ten other schools in five different towns and villages, these teachers were considered as being on duty post. This enabled them to enjoy duty-post financial benefits on the Project. In a few cases where the government refused to grant the duty post concession, the Project found ways of compensating such teachers from its own resources.

(ii) *Teachers' Performance And Evaluation:* As a result of the various innovative processes introduced on the Project, many extra demands were made on the teacher's time, energy and expertise. Below is a list of some of these demands:

1. active participation at writing and evaluation workshops;
2. correct interpretation of the schemes of work and the newly developed texts;
3. effective presentation of lessons, to promote mastery learning;
4. production of a variety of visual aids in large numbers;
5. constructive utilization of free periods created by specialist teaching;
6. regular keeping of a detailed class log book, reflecting all findings on pupil/teacher and pupil/pupil interactions on the newly developed curriculum texts;
7. good reception of Project Supervisors' critique with objective adaptation of the suggestions offered for the improvement of teaching methods;
8. study of resource materials and books for self improvement;
9. working with other Project teachers in pairs or groups, where necessary, to promote learning achievement;
10. consulting with parents of the pupils and with other resource persons in the community to collect first hand information about units of social and cultural studies and science whenever the need arose.

Though the teachers were enthusiastic about the Project, there were quite often lapses in their performances. The Project supervisors were assigned to sit in during some of the lessons to assist the teachers when they had problems with the texts. Some of the teachers felt that they were being treated like students on practice teaching and sometimes resented the intervention. Though these occurrences were few and far between, the Project authorities soon worked out a way by which supervisors could assist positively without undue disruption of the class work.

The use of free time by teachers caused a little problem at the beginning of the Project. Teachers tended to see it as a time to attend to personal business, but they were gradually trained and encouraged to utilize the period for preparing the much needed visual aids for their lessons. They were encouraged to prepare their aids in pairs and groups while exchanging ideas as they worked. Furthermore, the sharing of materials worked out to be economical.

The teachers were taught to keep log books of interactions in class. They were to record the amount of content covered within a given period, the materials used as supportive teaching aids, and the degree of verbal interactions during the lessons. The problems encountered by either the pupils or the teacher were also to be recorded. Some teachers undertook this task conscientiously to the end while some exhibited lapses here and there. Those among them who worked systematically were

very helpful during the feedback sessions of the writing workshop. When the lapses got too many, the Project supervisors devised corrective measures to prevent such lapses.

The keeping of the log book was also used as a method of evaluating the teacher's performance. The supervisors' rating was another. Pupil's assessment and the headmasters' report of teachers' performance were also part of the measures used for evaluating the teachers on the Project. Whenever any one of these reports was negative, the teacher concerned was usually summoned for discussion and counselling. Where the teacher did not show signs of change, his immediate transfer was made to another school.

(g) Problems Encountered With The Ministry

The problems encountered with the Ministry of Education were rather minimal when compared with the assistance received from it. The degree of assistance or rebuff given, varied over the years, depending on the convictions of the most senior officials of the Ministry at any given time. The first problem was that of the Ministry's scepticism over the viability of the Experiment. Though permission was granted to the University for the Project to commence, reactions to the Experiment were very lukewarm for the first three years. This meant also that comments sometimes made by some of the top officials of the Ministry were often negative and at best non-committal. At the insistence of the Project team, the Ministry of Education of the Western State finally sent a Panel of three Senior Inspectors of Education to visit and submit a report on the Project. It was a thorough inspection of classroom teaching, physical facilities, curriculum content, library facilities and other Project components. The report was very favourable to the Project and that started a chain of positive events.

Joint evaluation workshops were held for the Project organizers and the Ministry officials for the benefit of the Project and tests were designed for the pupils. Arrangements were made for both internal and external school leaving certificate tests for the Project pupils. In addition, the Western State Ministry of Education assisted the Project by approving ten additional schools for the expansion of the Project for proliferation purposes, and for ensuring that the Project teachers were not transferred to other schools and their duty-post payments were made to them by virtue of their special assignment in the Project schools.

Again, the Ministry came to the rescue of the Project when some members of the public and some national daily newspapers attacked the Project and accused the Project organizers of introducing a new system of education to the State 'by the back-door'. The Ministry issued an official release categorically defending the efficacy of the experiment with considerable interest. Some members of the Ministry were also given permission to participate in the regular summer writing workshops.

As evaluation tests were conducted and the results of the pupils' achievement were released to the Ministry, it became more obvious to the officials that the Experiment

was successful. The creation of additional states in 1976 led to a re-appraisal of the introduction of a language policy in primary education. At that point in time, the country had been divided into twelve States and the old former Western State had become Oyo, Ogun and Ondo States. Our interactions continued to be with the old Ministry of Education that the Project started with, but it had changed character and many of the old officials connected with the Project had been transferred to their various states of origin. The Project therefore stayed largely within Oyo State.

In spite of the problems encountered in the various phases of the Experiment, the Project continued to attract both national and international attention, and its fortune remained high because of its innovativeness.

PART THREE

Evaluation

VIII

Evaluation

I. Introduction

In order to understand the role which evaluation played in the Six-Year Primary Project, it is important to highlight again the evolutionary nature of the Project and the various modifications in its conception and implementation over time.

Initially, it was conceived as a research Project which would span 11 years — Six years of primary school and five years of secondary. A class of 30 to 40 Yoruba children was to be adopted in a given primary school in Ife, and taught in Yoruba throughout primary school years. English was to be taught as a second language. All the children were then to be admitted into the same secondary school in Ife, given an intensive course in English in the first year and then allowed to complete 5 years of secondary school normally. These children were then to be compared with other children in terms of *Cognitive* and *Affective* achievements, in order to test three hypotheses:

1. that the experimental children will not be worse academically than the children who follow the conventional route;
2. that knowledge and performance in English Language of experimental children will not be worse than those of children who follow the conventional route;
3. that the experimental children will be better adjusted, more relaxed, more enterprising and more resourceful than the children who follow the conventional route.

In the first place, the organizers and sponsors of the Project would have had to wait 11 years to get any clear evidence of the effectiveness of the Project. Secondly, the "Control" group would have been very unwieldy-being all the secondary school pupils in Nigeria who went through the conventional route.

Thirdly, problems of drop out are such that by the end of the eleven years, the number of surviving experimental children might be so small that no meaningful comparisons can be made.

Be that as it may, one feature of this research design strongly influenced the initial evaluation design. The first six years were in fact to be devoted to material development and instruction rather than to an experiment in the scientific research sense. The first evaluation design was therefore one geared to curriculum development. It was based on Stake's¹ ATO model with emphasis on formative evaluation and monitoring of antecedents, transactions and outcomes of the Project.

Two modifications were introduced into the Project almost as soon as it started. In the first place, the research design was made more truly experimental by the introduction of a control group right from the beginning. Thus, the three arms of Primary 1 in St. Stephen's School 'A' Modakeke were selected for the Project. Two arms (A & B) were designated experimental classes and one (C) was designated control. It thus became feasible to test the hypotheses right in the primary school.

The second modification came as a result of the discovery that there were gross deficiencies in the existing curricula and materials in primary schools. It became clear that the experiment could not simply depend on a translation of existing curricula materials into Yoruba and using them for instruction. For the Project to be meaningful, new curricula as well as new instructional materials had to be developed.

The implication of these two modifications was that two facets of the Project which had initially been planned to run consecutively now had to run concurrently namely:

1. Curriculum Development and Instruction
2. Hypothesis Testing.

In addition, the curriculum development facet became much more demanding than originally envisaged.

The hypothesis testing facet inevitably suffered at this stage because the materials for instruction were not yet ready and the experimental classes as well as control class could not be said to be having the true treatments yet.

Nevertheless, the original evaluation design was supplemented with a hypothesis testing design involving administration of achievement tests at yearly intervals to Project children and using the t-test to test if there were any significant differences in the achievement of experimental and control groups.

In the first three years of the Project, the thrust of evaluation activities was still largely formative. Evaluation Reports 1 and 2 were geared towards helping to improve the curriculum and instruction processes as well as the research design and implementation. In Evaluation Report no 1 of 1972 for example, it was recommended that testing for differences in achievement should in fact begin at the end of the third year for each generation. Several recommendations were also made in respect of the implementation of the Project, such as:

1. 12. Stake

1. The need to develop curriculum materials for both experimental and control classes which would be equivalent in content.
2. The need to ensure that control as well as experimental classes are equally adequately staffed.
3. The need to adopt a different policy with respect to repeats rather than simply dumping them into control classes.
4. The need to train curriculum writers in evaluation techniques so as to improve the quality of the curricula they produce and help them to construct appropriate achievement tests.

In addition, some baseline data on the intellectual ability of the Project children and the characteristics of the Project teachers were collected.

An interesting dimension was introduced when the Western State Ministry of Education came to take a keen look at the Project. Naturally, they were interested in the evaluation and research components. From the Ministry point of view, the crucial test of the success or otherwise of the experiment should be the performance of the experimental children in

- (a) the common entrance examination to secondary schools; and
- (b) the first school leaving certificate examination.

The evaluators felt that these were not the crucial criteria from the research point of view especially since the Project had worked out new curricula for the children which differed from those used for the first school leaving certificate examinations.

Nevertheless, the evaluators also recognized that, like the Ministry, these criteria are most likely to be the ones that parents and the society at large would use for judging the Project. Therefore, it was decided that data on these two examinations would be collected as part of the evaluation exercise.

In 1973, the Project was extended to ten schools which came to be known as proliferation schools; eight were designated experimental and two control. In addition, it was decided to add to the research design a second kind of control group, namely schools which were using the traditional curriculum and materials.

Unlike in the pilot school, the proliferation schools did not use specialist teachers for teaching English. Also by the time the Project spread to 'proliferation' schools, the curriculum materials were ready and the real hypothesis testing could begin. Thus, a series of annual achievement tests were administered from 1976 when the foundation set of proliferation schools were in Primary 3 and to 1979 when they were in Primary 5. The 1976 tests thus provided baseline measures against which subsequent developments in achievement could be measured.

Preliminary Testing in Pilot Schools.

In spite of the incompleteness of the curriculum materials, some preliminary indication of effectiveness of the medium of instruction was sought by testing the second generation of Project children (those who started in 1971) in Primaries 3 and 4 (1973 & 74) in English Mathematics. The results are shown in table 11.

Table 11
Comparison of performances of the second generation Project
children in St. Stephen's School Modakeke.

Treatment Group	Test Statistics	TEACHER CHARACTERISTICS				TEST M (1972)		MATHS				ENGLISH			
		Qual	Total Exp.	Exp. After Grade II	Reading Score	X		Primary 3		Primary 4		Primary 3		Primary 4	
								X	S.D	X	S.D	X	S.D	X	S.D
Experimental A		Gd. II	28 yrs	12 years	20	9.5	2.8								
" B		" "	11 yrs	5 years	23	10.2	4.9								
A + B		" "	28 yrs					23.3	5.7	71.0	16.9	153.5	25.8	55.1	19.5
Control		" "	28 yrs	18 years	42	10.6	4.9	20.9	5.7	56.6	13.6	99.0	29.9	44.7	11.8
	F					0.74									
	t							46		4.4**		1.83*		2.4	

The data indicates that the experimental and control groups are equal in intellectual ability.

The teachers are matched in teaching qualification but the Control teacher has a clear edge in teaching experience after Grade II.

The Control teacher also scores higher in the reading score suggesting that her intellectual ability is higher than those of the experimental teachers.

There was no significant difference between experimental and control groups in Primary 3 in Mathematics but the experimental group is significantly better in Primary 4.

The experimental group is significantly better than the control group in English in Primary 3 as well as Primary 4.

These results, considering that the control class seemed to have had a higher calibre teacher than the experimental class, suggested that the children taught in their mother tongue (Yoruba) are likely in the long run to record a significantly higher level of achievement than the control children.

It remained for the more comprehensive testing at the proliferation schools to confirm or disprove this suggestion.

Additional Hypotheses.

In addition to the three original hypotheses, it was possible to test two others at the proliferation stage, namely:

4. that the use of specialist teachers of English has no significant effect on the achievement of pupils in English,
5. that the new curriculum developed by the Project is more effective than the traditional curriculum in the achievement of the aims of primary education.

II. Research and Evaluation Designs

For convenience, this section is treated under four sub-headings A, B, C, and D. This is in recognition of the complexity of the Project and its development nature. With respect to the curriculum development facet of the Project and the development aspect of the research facet, the evaluation design was formative in nature. For testing hypotheses 1, 2, 4, and 5, an experimental research design was used. For the testing of hypothesis 3 (Affective outcomes), an ex-post-facto design was used. The ex-post-facto design was also used in looking at the criteria of success as perceived by the Ministry of Education namely performances in the first school leaving certificate and common entrance examinations.

The four designs are treated in detail in the following sections.

A. Design for formative evaluation

Formative evaluation is meant to help an educational programme, be it curriculum development, instruction or research, to operate at optimum level. It aims at monitoring the progress of the programme with a view to ensuring:

- (1) that plans are carried out faithfully and on schedule,
- (2) that difficulties in the operation are diagnosed early and corrective measures taken;
- (3) keeping track of unplanned outcomes, and
- (4) giving continuous, systematic feed-back to Project organizers and functionaries to help them take informed decisions on the operation of the Project.

The Stake model which was used identifies three major elements to be monitored as shown in Table 12.

Table 12
Framework for formative evaluation

PROGRAMME ELEMENT	VARIABLES	DATA GATHERING TECHNIQUES
I. Antecedents	<ol style="list-style-type: none"> 1. <i>Quality of Staff</i> <ul style="list-style-type: none"> — Qualification — Experience — Intellectual Ability 2. <i>Characteristics of children.</i> <ul style="list-style-type: none"> — Intellectual ability 3. <i>Learning environment</i> <ul style="list-style-type: none"> — Teacher Allocation — Administration — Resources for Learning. 	<p>Questionnaire, Nelson-Denny Reading Test</p> <p>Test M, Progressive Matrices</p> <p>Observation.</p>
II. Transactions	<ol style="list-style-type: none"> 1. <i>Instructional Materials</i> <ul style="list-style-type: none"> — Content and nature — Development strategies. 2. <i>Instructional Techniques</i> <ul style="list-style-type: none"> — Medium of Instruction. — Teacher-Class-material interaction. — Teacher Allocation. 	<p>Observation, Content Analysis</p> <p>Observation, Techniques.</p>

PROGRAMME ELEMENT	VARIABLES	DATA GATHERING TECHNIQUES
	3. <i>Supportive strategies</i> — Training of Project workers. — Interaction with ministry — Interaction with resource people. 4. <i>Intervention Strategies.</i> — Interaction with Project schools	Observation, interviews. Observation, interviews.
III. Outcomes	1. on Teachers 2. on Children 3. on Parents 4. on Educational Policy 5. on Policy makers. 6. on Project organizers and workers. 7. on Publishers.	Observation, interviews. Testing. Anecdotal Records.

Data collection on Antecedents took place at the beginning of the project.

Monitoring of Transactions and Outcomes continued at intervals all through the life of the Project.

Findings were fed back to Project organizers through periodic evaluation reports, discussions and other correspondence.

B. Longitudinal Study of Cognitive Achievement

(Hypotheses Testing)

The Sample

There were five groups of primary school pupils included in the longitudinal study of cognitive achievement. The five groups included:

- (1) St. Stephen's Experimental (SSE)
- (2) St. Stephen's Control (SSC)
- (3) Proliferation Experimental (PE)
- (4) Proliferation Control (PC)
- (5) Traditional Control (TC)

The groups are described below.

- (1) *St. Stephen's Experimental (SSE)*: This group started with 62 pupils comprising 32 pupils from class A and 30 pupils from class B of St. Stephen's 'A' School in Ile-Ife. The pupils used the new syllabus materials developed for the Six-Year-Yoruba Primary Project for the teaching of English, Yoruba, Mathematics, Social Studies and Science; and in addition, they were taught the English Language by a specialist teacher of English. This group used Yoruba as the medium of instruction from Primary one (P1) to Primary six (P6), a period of six years. Only 55 pupils continued to the end of their primary education in this group of 62.
- (2) *St. Stephen's Control (SSC)*: SSC is made up of 27 pupils from class C of St. Stephen's 'A' School in Ile-Ife. The pupils followed the same programme as pupils in SSE except for the fact that they were taught English by their ordinary classroom teacher who was not a specialist English Language teacher. This group used Yoruba as the medium of instruction for P1 through P3 but switched to English as the medium of instruction for P4 and they continued using English in P5 and P6.
- (3) *Proliferation Experimental (PE)*: One hundred and forty four (144) pupils from two rural and two urban primary schools started with this group. The urban schools were U.M.C. Demonstration School in Ibadan (37 pupils from both classes B and D) and Baptist Demonstration School in Iwo (40 pupils from classes A and B). The rural school was D.C. School in Elemo (26 pupils from class A). Pupils in this group followed the same programme as pupils in group SSE but did not have a specialist teacher of English. Like group SSE, this group used Yoruba as the medium of instruction through their Six Years of Primary education.
- (4) *Proliferation Control (PC)*: PC was made up of pupils from two primary schools, one urban and one rural. The urban school was St. Andrew's Demonstration School in Oyo with 46 pupils while the rural school was Oke-Omi School in Osu with 48 pupils from both classes A and B. The PC group also made use of the new curriculum materials but did not have a specialist English teacher. Like group SSC, this group used English as the medium of instruction from P4 through P6.
- (5) *Traditional Control (TC)*: The group started with 112 pupils from two primary schools that followed the usual curriculum of primary schools in the State. The urban school was St. Luke's Demonstration School in Ibadan (35 pupils from class A, 33 pupils from class C). The rural school was St. Luke's School Lalupon which had 44 pupils at the beginning of the study but only 25 pupils were left in the final year (P6). Pupils in this group had not used any of the new curriculum materials

developed for the Project and did not have a specialist English teacher. Like groups SSC and PC, this group used Yoruba as the medium of instruction from P1 through P3 but switched to English as the medium of instruction for P4, P5 and P6

Treatments

The treatments given to the various groups have been highlighted under sample above but the table below is a summary of such treatments.

Table 13:
The School Programme Variables Affecting the
five treatment groups

Treatment Group	Medium of Instruction	Content of School Subject (Curriculum)	English Materials	English Teacher
St. Stephen's Experimental	Yoruba ^b from P1 to P6	New	New	Specialist
St. Stephen's Control	English from P4 to P6 but Yoruba from P1 to P3.	New	New	Non-Specialist
Proliferation Experimental	Yoruba ^b from P1 to P6.	New	New	Non-Specialist
Proliferation Control	English ^c from P4 to P6 but Yoruba from P1 to P3.	New	Traditional	Non-Specialist
Traditional Schools	English ^c from P4 to P6 but Yoruba from P1 to P3	Traditional	Traditional	Non-Specialist

a except English materials

b except English materials

c except Yoruba language class.

From the table, it is clear that only group SSE made use of a specialist English teacher. The teacher was a specialist in that he was given extra training besides the teachers grade two certificate training in the teaching of the English language. The specialist teacher gave instruction to the group for the entire 6 years of their primary school.

Instruments:

Three major instruments were used for the evaluation exercises for the four years: Intelligence Tests, Achievement Tests and Demographic data form.

- (1) *Intelligence Tests:* During P3, Test M was administered to the pupils. Test M was designed to measure non verbal intelligence and did not involve the use of language at all. Test M was made up of 35 multiple choice items with six choices per item preceded by three examples.

At the end of P4, the Revens Progressive Matrices, a non-verbal culture free paper and pencil multiple choice answer test was administered to the pupils. There were five sets of the test but only the first three sets (sets A, B and C) were administered. A pretest exercise revealed that the pupils could not go beyond set C. The pupils were given 40 minutes limit.

There were no intelligence tests administered to the pupils at P5 and P6.

- (2) *Achievement Tests:* Since the purpose of this evaluation was to investigate the language and academic achievement of the groups, tests in English Language, Yoruba Language, Mathematics, Social and Cultural Studies, and Science were developed at the end of each year. Because of the syllabi of the Project groups, there was a need to construct two types of tests for each of these subjects. As a result, there were tests based on the common contents of the syllabi and others based on the new contents of the syllabi designed for the Project classes. In effect, there were two tests for each of Mathematics, Social & Cultural Studies and Science during the testing period of each year. Since English and Yoruba Language syllabi were the same for all of the groups, there was no need to have two tests for them. Also, due to the fact that during P4 through to P6, the medium of instruction for the Project classes was Yoruba for all school subjects except English while English was used as the medium of instruction for the control classes for all school subjects except Yoruba, both Yoruba and English versions of the tests of Social and Cultural Studies, Science and Mathematics were developed. The Yoruba versions were administered to all but a few randomly selected pupils in the Project classes who were administered the English versions and the English versions were always administered to all but a few randomly selected pupils in the control classes.

The construction of test materials usually involved three stages:

(i) The Workshop:

A workshop was always conducted for three days before the examinations period each year in the University of Ife, Ile-Ife, Nigeria. Teachers

of the various treatment groups, (SSE, SSC, PE, PC, and TC) were always represented and subject area specialists were invited to such workshops. The specialists included lecturers of universities, and teachers of teacher training colleges who had experience in curriculum development for primary schools. The members of the workshops were grouped into subject areas headed by the specialists. Each group would prepare a pool of questions in the subject areas which were earlier mentioned.

In preparing the questions, the two syllabi would be studied and common areas were usually selected in Mathematics, Social Studies, and Science. The questions were numerous and they covered as many topics as possible in each of the subjects.

(ii) *Preliminary Selection of Test Items*

Subjects specialists who were from neutral grounds (universities and teacher training colleges) were engaged to compile the questions and select possible items for the examinations. It was quite impossible to complete this job in a three-day workshop. The selected items were usually pretested in neutral grounds for each subject.

(iii) *Pretesting and Final Selection of Test Items*

A neutral ground was always selected for pretesting. The pretest activity took place in towns like Ogbomoso and Osogbo. The schools in these towns were typical traditional schools with two classes of primary four. The class teachers were holders of Teachers grade II certificate. All of the papers were usually administered to the pupils and used to be supervised by the investigator and the class teacher.

The purposes of the pretest were to:

- (a) be able to debug areas of mistakes,
- (b) be able to determine if the time allotted to each of the papers was adequate enough,
- (c) be able to determine the appropriate sets to be used out of the available five sets of Raven's Progressive Matrices test in P4, and
- (d) be able to rationalize about the degree of reliability of each of the items in the questions. This last purpose turned out to be a difficult job.

With the above procedure, the question papers were usually made up of:

- (a) English Language, containing:

Spelling, Word Recognition, Listening, Comprehension, Word-picture Matching, Morphology, Cloze test, Word Understanding, Reasoning, Reading Comprehension, and Composition.

- (b) Yoruba Language, made up of:
 Word Pronunciation, Oral Reading, Greetings, Accents, Word Arrangement, Oral Comprehension, Idioms, Similies, Proverbs, Use of Words in Sentences, Antonyms, Concept-Word Differentiation, Sounds, Silent Reading Comprehension, Sentence Arrangement, Passage Arrangement, Sentence Completion, Composition, Letter Writing, and Cloze Test.
- (c) Social and Cultural Studies Test: (Yoruba and English Versions)
 - New Syllabus Test
 - Common Content Test
- (d) Science:
 - New Syllabus Test (Yoruba Version)
 - Common Content Test (Yoruba and English Versions).
- (e) Mathematics (Yoruba and English Versions) in
 - New Syllabus Test
 - Common Content Test

For a detailed description of each of these tests and the subtests, see Ojerinde and Cziko(1977 & 1978) and Ojerinde (1979 & 1983).

(3) *Demographic Data Form:*

A form was designed to collect background information in respect of each pupil. In the form, the following information was required to be supplied:

1. Name
2. Age
3. Sex
4. Religion
5. Mother's tongue
6. Father's Education
7. Father's Occupation
8. Mother's Education
9. Mother's Occupation
10. Number of wives in the family
11. Total number of siblings.

Data Collection Procedure

The actual data collection involved the following three stages:

- (i) *Training of Examiners:* Thirty university undergraduate students of the Faculty of Education whose areas of discipline ranged from Mathematics, Physics, Chemistry, Biology to English, Yoruba, Geography and History were employed and trained as examiners. All of them could read and write Yoruba Language adequately.

The examiners were briefed on how to conduct examinations generally; the need to create rapport between them and the pupils, the extent to which the examiners could explain any question to the examiners, and the need to go round the classroom at intervals were stressed. They were usually shown possible areas of problems, based on the personal experience of the investigator during the pretesting period. The thirty of them were usually used except on a few occasions when substitutes were made during the P5 and P6 testing periods.

- (ii) *Administration of Tests:* The papers which had both Yoruba and English versions were distributed in a specific way. In schools where the major medium of instruction was English, the 'English' version of the question papers was inserted between the other papers distributed randomly to at least five pupils in the class. The class teachers were allowed to take part in the distribution of the question papers, to aid in the creation of a generally comfortable atmosphere for the pupils and were consulted when any problems arose.

The general pattern of examination period in each school was followed as much as possible by the examiners. The pupils usually sat in the same hall in the presence of their class teachers. There were no reports from either the class teachers or the examiners that the teachers or the examiners did not co-operate throughout the two weeks of the testing period for each year.

- (iii) *Grading the Tests:* At the end of the administration, the examiners would return to the university campus and settle in a hall for central grading. The examiners were distributed into six separate groups each of which graded one subject (i.e. English, Yoruba, Mathematics, Social and Cultural Studies, Science).

Before the papers were graded, four dummy copies of the pretest scripts would be given to each examiner in their respective groups. Using the marking scheme, the examiners were asked to grade the dummy papers for practice purpose. The scores which were got for this exercise would be compared with the new scores item by item. In most cases, the scores were the same. In cases where there were differences (although very few) especially in the Yoruba and English language essays, the ne-

cessary reviews would be made and there used to be general agreement in the scoring pattern.

For each group, there was always a leader selected by the group members. The leader was to counter-check the grades after each examiner had finished the paper. The papers would be passed to the investigator for further scrutiny. Generally, there were few errors in the essay questions initially. Since most of the papers were objective in nature, there were few mistakes. Grading was usually done in two sessions everyday, 8.30 a.m. to 12.00 noon and 1.30 p.m. to 3.30 p.m. over a period of two weeks, for each year.

Since the tests also served as promotion examinations for the schools involved, the raw scores were usually sent to the schools where school personnel determined the passing mark for each school subject.

Demographic Data Form

The demographic data form was completed only once when the pupils were in P3 in 1976. The information from the form was only used in P4.

Analyses Procedures

The analysis of variance, after factor analysis of the tests, was used to analyze the test in P3 while the analysis of covariance was the principal statistical procedure used to analyze the results of the tests administered to the pupils in the five treatment groups included in the evaluation in P4 through P6. The analysis of covariance is similar to the analysis of variance used to analyze the results of the June 1976 evaluation except that the analysis of covariance permits the researcher to statistically control the effect of potentially confounding variables, i.e. factors other than those being investigated that otherwise might affect the scores of pupils in the evaluation. For our purposes, the potentially confounding variable was socio-economic status (SES) which was statistically controlled by using four measures (father's occupation, father's education, mother's occupation and mother's education), as 'covariates' in the analysis of covariance with either class, treatment group, or a combination of treatment group and school setting as independent variables, i.e. factors used to explain any significant differences in test scores among the different groups of pupils. It should be noted that when naturally occurring groups are studied, there is no way to experimentally control for variables such as SES. We may *statistically* control for such potentially confounding variables, however, by noting the relationship between SES and a particular dependent variable (test score) for all groups and then 'adjusting' the score for each pupil. For example, it is found that there is a strong positive relationship between SES and performance on a test (i.e. pupils of high SES score higher than the pupils of low SES, regardless of group), a pupil of

above average SES will have his test score adjusted downward, while a pupil of below average SES will have his score adjusted upward. The analysis of covariance is identical to the analysis of variance except for this prior adjustment of scores. If we then find significant differences between groups for the *adjusted* scores, we can then say that these differences exist when 'controlling for' the effect of SES (the covariate) and that differences in SES are *not* responsible for the group differences observed.

Although it would have been desirable to include intelligence as an additional covariate, this was not done since no measure of intelligence was administered to the pupils before or during P1. Although such measures were administered at P3 and P4, it would not be appropriate to use these as covariates since a pupil's intelligence may well be affected by the particular programme he is in by the time he reaches P3 and P4. This would violate one of the primary conditions of the analysis of covariance—that the independent variable has no effect on the covariate. Indices of SES were used as covariates, however, since it is unlikely that the SES of a pupil's parents would be affected by the primary school programme of the pupil.

The following statistical analyses were carried out to analyze the results of the tests:-

1. In P3 and P4 Factor analysis of the English and Yoruba subtests were performed. This was done to determine whether it would be appropriate to create English and Yoruba composite scores out of the test scores. In P5 and P6 factor analysis was not performed since the P3 and P4 experience showed that there was no need.
2. A one-way analysis of covariance on the test results of four classes represented in cells 1 and 4 of Table 1 with class as a random factor and four indices of SES (mother's and father's education and occupation) as covariates. Since these represent the same treatment condition (PE classes in an urban setting), this analysis was performed to determine if there is any significant teacher effect and to give some indication as to whether any observed differences among the different treatment groups revealed by the following analyses of covariance could be attributed to the different educational programmes being offered to the pupils or to teacher or other classroom characteristics.
3. A one-way analysis of covariance of the test results of the classes represented in cells 2, 3, 4, 5, and 6 of Table 4 with treatment group (SSE, SSC, PE, PC, AND TC) as the independent variable and the four SES indices as covariates. This analysis was performed to compare the effects of all five treatment conditions in urban settings. When significant group effects were found, the Newman-Keuls procedure was used to investigate differences among the five adjusted group means.
4. A one-way analysis of covariance of the test results of classes represented in cells, 7, 8, and 9 of Table 4 with treatment group (PE, PC and

TC) as the independent variable. This analysis was performed as a follow-up to the two-way analysis of covariance described above which revealed significant interactions between treatment condition and school setting for eight of the nine test variables. The purpose of this analysis was to examine the effects of three of the treatment conditions in rural settings. When significant group effects were found, the Newman-Keuls procedure was used to investigate differences among the three adjusted group means.

5. A two-way analysis of covariance on the test results of classes represented in cells 4, 5, 6, 7, 8, 9 of Table 4 (below) with three treatment conditions (PE, PC, and TC) and school setting (urban and rural) as independent variables and the four SES indices as covariates was also performed.

TABLE 14
Classes Included In the June 1977 Evaluation

	St. Stephen's Experimental	St. Stephen's Control	Proliferation Experimental	Proliferation Control	Traditional Control
Urban		2. St. Stephen's	1. UMC Demo Classes B & D		
Urban	2. St. Stephen's "A" Classes A & B	3. St. Stephen's "A" Class C	4. Baptist Demo Classes A & B	5. St. Andrew's Demo. Classes A & B	6. St. Luke's Demo Classes A & B
Rural			7. D.C. Elemo Class A	8. Oke-Omi Class A & B	9. St. Luke's Lalupon Classes A & B

Analysis 2, 3, and 4 described above were applied to all the classes while analysis 5 was carried out for only P3 and P4.

Because of the reduction in the number of candidates in most of the schools, the test analysis was used for the analysis of the P6 scores to test for effect of teacher variables.

C. Study of achievement in public examinations

This was ex-post-facto study and had for sample only those of the Project children who took the respective public examinations.

The involved sample is shown in Table 15.

Table 15

Sample of experimental and Control Children used in
comparing achievement on public examinations 1975
(First set of project children in Pilot school)

<i>Examination</i>	<i>Experimental</i>	<i>Control</i>
1st Schooling Leaving Certificate.	43	32
Common Entrance Examination	25	8

The means of experimental and control groups were compared using a students t-test.

D. Follow-up study of Affective outcomes

This was also an ex-post-facto study along the lines envisaged in the original Project design. In other words, experimental Project children in secondary schools were compared with their contemporaries who had passed through the conventional route. Although 27 children were traced to their respective secondary schools. They were then compared with their classmates numbering 268 on two instruments designed to test adjustment of school children.

Instrument 1 was the Student Problem Inventory (SPI) (Bakare). Six sections of this instrument considered relevant were used. SPI consisted of an inventory of common problems of school children. Each respondent was then required to tick those problems which apply to him or her. The total score of experimental children was then compared with that of the other children.

Instrument 2 was a sociometric instrument in which all members of the classes in which the project children were, had to choose one person with whom they would like to do certain things or whom they would like to occupy certain positions. Nine choices were included in the instrument namely:

1. as a leader
2. as studymate
3. as tripmate

4. to discuss with
5. to ask a favour of
6. to accompany on an outing
7. to share food with
8. as a confidant
9. to play with.

The average number of times the experimental children were nominated for each role was then compared with that of non Project children.

III Results

A. Patterns of Cognitive Achievement

This section discusses with evidence, the effectiveness or otherwise of the medium of instruction, the curriculum and the specialist teacher. Interested readers may refer to the evaluation reports of Ojerinde and Cziko (1976 and 1977) and the reports of Ojerinde (1979 and 1983) for other details and results of the remaining analyses.

Urban Settings

The following tables present the results of the achievement of the five groups in different subject areas for a period of four years in urban settings.

Table 16
1976: Primary 3 Results (Urban Schools)

Variables	Group Means					F	df
	SSC	TC	PC	SSE	PE		
1. Test M	7.9	8.3	8.3	8.3	8.3	1	4,261
2. Social & Cultural Studies - Common	PC	SSC	TC	PE	SSE	10.1*	4,261
	3.2	3.5	3.9	4.6	5.4		
3. Social & Cultural Studies - New Curriculum	SSC	PC	TC	PE	SSE	4.7*	4,261
	4.8	5.1	5.4	5.5	6.4		
4. Science - New Curriculum	TC	PC	SSC	PE	SSE	16.5*	4,261
	13.4	13.6	13.9	17.1	20.7		
5. Maths - Traditional Curriculum	SSC	PC	PE	TC	SSE	53.9*	4,261
	9.9	13.8	14.2	26.5	29.6		
6. Maths - New Curriculum	SSC	PC	PE	TC	SSE	36.7*	4,262
	11.4	12.9	14.8	26.0	30.0		
7. English - Oral Communication	PC	PE	SSE	SSC	TC	16.5*	4,133
	1.7	3.5	3.7	4.2	5.5		

8. English Reading Composite	SSC	SSE	PE	PC	TC		
	<u>4.3</u>	<u>4.9</u>	<u>5.5</u>	<u>6.5</u>	<u>8.1</u>	7.8*	4,261
9. English Writing Composite	PE	PC	SSC	SSE	TC		
	<u>5.5</u>	<u>5.7</u>	<u>5.9</u>	<u>6.8</u>	<u>8.0</u>	4.9*	4,261
10. Yoruba Cloze	TC	SSC	SSE	PE	PC		
	<u>0.5</u>	<u>2.4</u>	<u>2.9</u>	<u>4.5</u>	<u>4.6</u>	19.0*	4,262
11. Yoruba Language Composite	TC	PC	PE	SSC	SSE		
	<u>11.2</u>	<u>13.9</u>	<u>16.9</u>	<u>23.0</u>	<u>29.9</u>	69.0*	4,261

Note: Means not underscored by the same solid line differ significantly.

(p .05)

*p .01

Table 17

1977: Primary 4 Results (Urban Schools)

No.	Variables	Adjusted Group Means					F	df
1. Raven's Progressive Matrices		PC	TC	PE	SSE	SSC		
		<u>12.6</u>	<u>12.2</u>	<u>12.8</u>	<u>13.0</u>	<u>14.1</u>	1.20	4,280
2. Social and Cultural Studies Common		TC	SSC	PC	PE	SSE		
		<u>7.5</u>	<u>7.6</u>	<u>8.3</u>	<u>9.1</u>	<u>22.7</u>	10.09*	4,280
3. Social and Cultural Studies New		TC	SSC	PE	PC	SSE		
		<u>5.3</u>	<u>5.9</u>	<u>6.5</u>	<u>6.7</u>	<u>9.5</u>	9.21*	4,280
4. Science New		TC	SSC	PE	PC	SSE		
		<u>28.2</u>	<u>29.9</u>	<u>30.1</u>	<u>31.9</u>	<u>40.8</u>	33.93*	4,274
5. Science Common		SSC	PC	TC	PE	SSE		
		<u>8.4</u>	<u>8.5</u>	<u>9.5</u>	<u>9.6</u>	<u>13.5</u>	6.73*	4,280
6. Maths New		PE	TC	SSC	PC	SSE		
		<u>12.8</u>	<u>14.2</u>	<u>14.7</u>	<u>14.9</u>	<u>22.8</u>	8.59*	4,280
7. Maths Common		SSC	PE	PC	TC	SSE		
		<u>4.6</u>	<u>11.1</u>	<u>11.7</u>	<u>13.4</u>	<u>20.1</u>	20.14*	4,280
8. English Language Composite		PC	TC	SSC	PE	SSE		
		<u>38.7</u>	<u>40.7</u>	<u>42.2</u>	<u>43.9</u>	<u>59.1</u>	16.68*	4,249
9. Yoruba Language Composite		PC	TC	SSC	PE	SSE		
		<u>80.4</u>	<u>82.7</u>	<u>86.1</u>	<u>96.0</u>	<u>115.0</u>	16.68*	4,249

Note: Means not underscored by the same line differ significantly (P .05) according to the Newman-Keuls procedure.

*P .01

Table 18

1978: Primary 5 Results (Urban Schools)

No.	Variables	Adjusted Group Means					F	df
		TC	PC	SSC	PE	SSE		
1.	Social Science Syllabus	<u>25.0</u>	<u>28.6</u>	<u>31.2</u>	<u>33.3</u>	<u>40.7</u>	43.45*	4,284
2.	Social Science	<u>22.7</u>	<u>23.1</u>	<u>25.5</u>	<u>28.9</u>	<u>31.8</u>	35.46*	4,283
3.	Science New Syllabus	<u>22.0</u>	<u>23.0</u>	<u>25.3</u>	<u>30.4</u>	<u>33.8</u>	44.15*	4,288
4.	Science Common Syllabus	<u>21.8</u>	<u>25.3</u>	<u>28.2</u>	<u>32.8</u>	<u>36.6</u>	40.90*	4,287
5.	Maths New Syllabus	<u>17</u>	<u>22.0</u>	<u>22.4</u>	<u>22.6</u>	<u>29.0</u>	23.00*	4,288
6.	Maths Common Syllabus	<u>19.9</u>	<u>22.1</u>	<u>22.3</u>	<u>30.1</u>	<u>30.2</u>	15.42*	4,288
7.	English Language	<u>55.4</u>	<u>58.6</u>	<u>59.5</u>	<u>64.7</u>	<u>76.9</u>	11.69*	4,265
8.	Yoruba Language	<u>82.4</u>	<u>95.9</u>	<u>114.4</u>	<u>115.9</u>	<u>145.2</u>	67.68*	4,263

Table 19

1979: Primary 6 Results (Urban Schools)

No.	Variables	Adjusted Group Means					F	df
		TC	PC	SSC	PE	SSE		
1.	Social Science Common	<u>20.31</u>	<u>24.01</u>	<u>25.31</u>	<u>29.61</u>	<u>32.3</u>	23.00*	4,205
2.	Social Studies New	<u>18.31</u>	<u>25.63</u>	<u>28.91</u>	<u>33.71</u>	<u>37.83</u>	40.45*	4,205
3.	Science Common	<u>15.72</u>	<u>24.83</u>	<u>29.72</u>	<u>29.94</u>	<u>36.30</u>	27.33*	4,205
4.	Science New	<u>19.71</u>	<u>23.51</u>	<u>24.81</u>	<u>31.26</u>	<u>38.50</u>	45.23*	4,205
5.	Mathematics Common	<u>20.61</u>	<u>27.32</u>	<u>30.45</u>	<u>33.65</u>	<u>34.72</u>	51.50*	4,205
6.	Mathematics New	<u>16.72</u>	<u>25.50</u>	<u>28.32</u>	<u>34.62</u>	<u>38.56</u>	44.48*	4,205
7.	Yoruba Language	<u>53.44</u>	<u>62.32</u>	<u>64.51</u>	<u>67.35</u>	<u>69.28</u>	30.32*	4,205
8.	English Language	<u>52.55</u>	<u>67.32</u>	<u>68.56</u>	<u>70.25</u>	<u>72.10</u>	35.30*	4,205

+ The underlined scores are homogeneous.

* Significant at P .01

N = 55 32 40 43 40

Group = SSE, SSC, PE, PC, TC.

The result of performance on each subject has been summarized in the following graphs. Where 1 = SS

1: Social Studies Common Syllabus

<i>Rank</i>	<i>Urban</i>				
5	x	x	x	x	
4	+	+	+	+	
3	1	2	2		
2				2	
1	2	1	1	1	
<hr/>					
	1976	1977	1978	1979	Year
	P ₃	P ₄	P ₅	P ₆	

2: Social Studies New Syllabus

<i>Rank</i>					
5	x	x	x	x	
4	+	2	+	+	
3	1	+		2	
2	2		2		
1		1	1	1	
<hr/>					
	1976	1977	1978	1979	Year
	P ₃	P ₄	P ₅	P ₆	

3: Science New Syllabus

<i>Rank</i>					
5	x	x	x	x	
4	+	2	+	+	
3		+	2		
2	2			2	
1	1	1	1	1	
<hr/>					
	1976	1977	1978	1979	Year
	P ₃	P ₄	P ₅	P ₆	

4: Science Common Syllabus

Rank					
5		x	x	x	
4		+	+	+	
3		1	2	2	
2		2			
1			1	1	
<hr/>					
	1976	1977	1978	1979	Year
	P ₃	P ₄	P ₅	P ₆	

5: Maths. Common Syllabus

Rank					
5	x	x	+	+	
4	1	1	x	x	
3	+	2			
2	2	+	2	2	
1			2	1	
<hr/>					
	1976	1977	1978	1979	Year
	P ₃	P ₄	P ₅	P ₆	

6: Maths New Syllabus

Rank					
5	x	x	x	x	SSE
4	1	2	+	+	PE
3	+			2	PC
2	2	1	2		SSC
1		+	1	1	TC
<hr/>					
	1976	1977	1978	1979	
	P ₃	P ₄	P ₅	P ₆	

x = SSE
 1 = TC
 + = PE
 2 = PC
 = SSC

7: English Language Composite

Rank					
5	1	x	x	x	
4	x	+	+	+	
3			1		
2	2	1	2	2	
1	+	2		1	
					Year
					P ₃ P ₄ P ₅ P ₆

8: Yoruba Language Composite

Rank					
5	x	x	x	+	
4		+		x	
3	+		+	2	
2	2	1	2		
1	1	2	1	1	
					Year
					P ₃ P ₄ P ₅ P ₆

Graphs 1 to 8 represent the results on tables 11 to 14. The homogeneous groups are encircled. The ranks of each group have been used to plot the graph from class to class for each subject area.

To illustrate the interpretation of the graphs, let's use Graph 8 which deals with Yoruba.

- (1) In P₃, the five treatment groups were on different levels of achievement with SSE as the best group while SSC followed and Group TC had the lowest level of achievement.
- (2) However, in P₄, groups SSC, PC, PE and TC were homogeneous on the Yoruba language test while Group SEE achieved significantly higher than the remaining four groups; again SSE was the best achiever.
- (3) By 1978, when the pupils were in P₅, the degree of homogeneity noticed in P₄ had been decreased. In P₅, SSE had the best score, and it was followed by SSC and PE (two homogeneous groups) whereas groups PC and TC had significantly lower scores.
- (4) P₆ tended to be much the same with the P₅ result. Groups SSE and PE achieved significantly better than the remaining three groups while group PC and SSC demonstrated homogeneity and significantly different achievement from TC.

Similar interpretation could be given to the remaining diagrams. A quick look at the diagrams reveals that the experimental groups (PE and SSE) excelled above the remaining groups on all the school subjects at the end of the Primary Education. One is therefore compelled to agree that the medium of instruction, and the new curriculum are effective enough. The case of the specialist English language teacher can be put aside, this is sequel to the fact that the groups which did not have the specialist also performed better than the control classes all over the years. To further assert this claim, the rural setting is also presented in the next section.

Rural Settings

In the rural setting, there were no English language specialist teachers.

The following tables also present the results of achievement of the three groups on different subject areas for a period of five years for the rural setting.

Table 20
1976: Primary 3 Results (Rural Schools)

No.	Variables	Group Means			F	df
		TC	PC	PE		
1.	Test M	<u>4.3</u>	<u>6.6</u>	<u>18.1</u>	131.9*	2,116
2.	Social & Cultural Studies - Common	<u>1.6</u>	<u>4.0</u>	<u>5.7</u>	48.2*	2,115
3.	Social & Cultural Studies - New Curriculum	<u>3.8</u>	<u>3.8</u>	<u>6.7</u>	22.3*	2,115
4.	Science - New Curriculum	<u>10.9</u>	<u>14.3</u>	<u>15.5</u>	7.1*	2,117
5.	Maths. - Traditional Curriculum	<u>6.4</u>	<u>10.9</u>	<u>25.1</u>	104.4*	2,117
6.	Maths - New Curriculum	<u>3.9</u>	<u>10.6</u>	<u>15.3</u>	29.1*	2,118
7.	English - Oral Communication	<u>0.0</u>	<u>1.3</u>	<u>2.4</u>	10.0*	2,64
8.	English - Reading Composite	<u>3.3</u>	<u>3.6</u>	<u>11.8</u>	144.4*	2,116
9.	English - Writing Composite	<u>2.4</u>	<u>2.5</u>	<u>2.5</u>	1	2,116
10.	Yoruba Cloze	<u>0.3</u>	<u>2.2</u>	<u>3.4</u>	12.7*	2,116
11.	Yoruba Language Composite	<u>7.0</u>	<u>11.9</u>	<u>15.3</u>	13.3*	2,116

Note: Means not underscored by the same solid line differ

*p Significantly ($p < 0.05$)

Table 21
1977: Primary 4 Results (Rural Schools)

No.	Variables	Adjusted Group Means			F	df
1. Raven's Progressive Matrices		PE	TC	PC		
		<u>11.2</u>	<u>11.3</u>	<u>16.7</u>	42.33*	2,107
2. Social & Cultural Studies - Common		TC	PC	PE		
		<u>4.6</u>	<u>6.6</u>	<u>8.9</u>	7.36*	2,108
3. Social & Cultural Studies - New Curriculum		TC	PC	PE		
		<u>3.6</u>	<u>5.4</u>	<u>7.7</u>	8.63*	2,107
4. Science New		TC	PC	PE		
		<u>22.2</u>	<u>27.5</u>	<u>30.8</u>	8.90*	2,108
5. Science Common		TC	PC	PE		
		<u>5.5</u>	<u>9.1</u>	<u>11.0</u>	8.85*	2,108
6. Mathematics New		TC	PC	PE		
		<u>7.5</u>	<u>12.2</u>	<u>17.7</u>	26.55*	2,108
7. Mathematics Common		TC	PE	PC		
		<u>8.0</u>	<u>8.3</u>	<u>10.5</u>	1.94*	2,108
8. English Language Composite		TC	PC	PE		
		<u>27.9</u>	<u>34.0</u>	<u>41.6</u>	28.44*	2,105
9. Yoruba Language Composite		TC	PC	PE		
		<u>45.7</u>	<u>80.6</u>	<u>87.8</u>	23.03*	2,105

Note: Means not underscored by the same line differ significantly (p .05)

*p .01

Table 22
1978: Primary 5 Results (Rural Setting)

No.	Variables	Group Means			F	df
1. Social Science New Syllabus		TC	PC	PE		
		<u>13.7</u>	<u>26.6</u>	<u>33.3</u>	113.60*	2,103
2. Social Science comm. Syllabus		TC	PC	PE		
		<u>15.0</u>	<u>22.8</u>	<u>30.3</u>	89.76*	2,104
3. Science New Syllabus		TC	PC	PE		
		<u>14.9</u>	<u>28.0</u>	<u>37.6</u>	53.13*	2,104
4. Science Common Syllabus		TC	PC	PE		
		<u>16.9</u>	<u>26.9</u>	<u>34.4</u>	64.60*	2,106
5. Maths New Syllabus		TC	PC	PE		
		<u>10.4</u>	<u>14.6</u>	<u>24.1</u>	15.424*	2,104
6. Maths Comm. Syllabus		TC	PC	PE		
		<u>10.9</u>	<u>15.0</u>	<u>28.2</u>	19.481*	2,104

7. English Language	TC	PC	PE		
	<u>30.5</u>	<u>50.9</u>	<u>69.4</u>	130.8*	2,100
8. English Language	TC	PC	PE		
	<u>55.4</u>	<u>105.2</u>	<u>116.6</u>	70.6*	2,107

Note: Means not underscored by the same solid line differ significantly p .01.

Table 23
1979: Primary 6 Results (Rural Schools)

No.	Variables	Adjusted Group Means			F Ratio	df
		TC	PC	PE		
1. Social Science New		<u>16.57</u>	<u>28.32</u>	<u>33.17</u>	27.7*	2,88
2. Social Studies New		<u>16.83</u>	<u>25.86</u>	<u>30.03</u>	38.8*	2,88
3. Science Common		<u>13.15</u>	<u>24.24</u>	<u>26.96</u>	19.5*	2,88
4. Science New		<u>12.24</u>	<u>24.25</u>	<u>26.26</u>	16.9*	2,88
5. Mathematics Common		<u>14.88</u>	<u>24.25</u>	<u>30.23</u>	28.87*	2,88
6. Mathematics New		<u>15.87</u>	<u>27.36</u>	<u>33.45</u>	37.94*	2,88
7. Yoruba Language		<u>43.90</u>	<u>62.31</u>	<u>67.82</u>	33.91*	2,88
8. English Language		<u>42.73</u>	<u>58.32</u>	<u>65.72</u>	30.53*	2,88

*P .5

The results presented in the tables have been graphically demonstrated overleaf for each subject for the four years.

SSE x
SSC
PE +
PC 2
TC 1

9: Social Studies Common Content

<i>Rural</i>				
3	+	+	+	+
2	2	2	2	2
1	1	1	1	1
	76	77	78	79
	P ₃	P ₄	P ₅	P ₆

10: Social Studies New Syllabus

3	+	+	+	+
2	1	2	2	2
1	2	1	1	1
	76	77	78	79

11: Science New Syllabus

3	+	+	+	+
2	2	2	2	2
1	1	1	1	1
	76	77	78	79

12: Science Common Syllabus

3		+	+	+
2		2	2	2
1		1	1	1
	76	77	78	79

13: Maths. Common Syllabus

3	+	2	+	+
2	2	+	2	2
1	1	1	1	1
	76	77	78	79

14: Maths New Syllabus

3	+	+	+	+
2	2	2	2	2
1	1	1	1	1
	76	77	78	79

15: English Language Composite

3	+	+	+	+
2		2	2	2
1		1	1	1
	76	77	78	79

16: Yoruba Language Composite

3	+	+	+	+
2	2	2	2	2
1	1	1	1	1
	76	77	78	79

Again, as demonstrated in the urban setting, the experimental group (PE) has come out to be the best achiever in all of the subjects toward the end of Primary School Education. This is a demonstration of the fact that the medium of instruction has helped the children and that the curriculum has been effective. Once more, there was no specialist English language teacher in the rural setting yet the group which used the Yoruba language as a medium of instruction had come out to be the best achievers.

B. Performance in Public Examinations

Tables 24 and 25 show the performances of the first set of Project children in two public examinations;

- (1) The first school leaving certificate examination and the common entrance examination respectively.

Table 24
A comparison of the performance of the Control and
the Experimental groups in the First
School Leaving Certificate Examination 1974/75

SUBJECTS	CONTROL		EXPERIMENTAL		DIFF	T.
	MEAN	S.D	MEAN	S.D.		
ARITHMETIC	50.31	21.56	37.40	22.67	12.91	2.51
ENGLISH	58.41	15.32	58.16	17.14	0.29	0.65
GEN. KNOWL.	51.66	12.31	52.44	15.56	-0.78	0.24
BIL. KNOWL.	29.34	9.78	29.82	10.70	-0.48	0.20
YORUBA	71.91	8.09	77.72	7.88	-5.81	3.11*

1. Diff = Differences between means
*Statistically significant at .01 level.

Table 25
A comparison of the performance of the control
and the experimental groups on the National
Common Entrance Examination, 1974/75

SUBJECTS	CONTROL		EXPERIMENTAL		DIFF	T.
	MEAN	S.D	MEAN	S.D.		
ARITHMETIC	43.75	9.57	43.12	7.49	0.63	0.17
QN. APTIT.	51.00	14.46	50.12	9.41	0.88	0.16
ENGLISH	58.25	10.83	58.64	8.29	-0.39	-0.09
VERB. APTIT.	50.38	11.19	52.24	8.27	-1.86	-0.44

1. Diff. = Difference between means.

In the first school leaving certificate examination, there was no statistically significant difference between the performances of experimental and control children in Arithmetic, English, General Knowledge and Bible Knowledge. In Yoruba, however, Experimental children performed better than control. It would seem that the use of Yoruba as a medium of instruction throughout reinforced the experimental children's knowledge of the subject.

In the National Common Entrance examination, there was no statistically significant difference between the performances of experimental and control children on all the four papers.

These results, although the numbers were small tend to support hypotheses 1 and 2.

C. Affective outcomes.

Table 26 shows the comparative scores of Project and non Project children on the students' Problem inventory (SPI). It shows that Project children report on the average, fewer problems than non Project children. This is consistently true in all the sub-sections of the inventory as well as in the total score.

Table 26
Comparison of Project Experimental Children with
Non Project children in Grammar Schools on
'Student's Problem Inventory'

<i>SPI Section</i>	<i>Mean Scores of Project Children N = 27</i>	<i>Mean Scores of Non Project Children. N = 268</i>
C	.78	1.39
E	1.7	2.65
F	2.0	2.86
I	1.07	1.62
J	2.3	3.29
K	1.93	2.66
Total	9.78	14.47

Table 27 shows the performances of Project children on the sociometric instrument. Two conclusions may be drawn here.

1. On the whole, the Project children are slightly above average in social acceptability.
2. They are notably above average in acceptability as:
 - (i) leader
 - (ii) study mate
 - (iii) trip mate
 - (iv) playmate.

Table 27
Social Acceptability of Project Experimental Children
In Grammar Schools as Compared with their peers in the same Schools.
N = 27

<i>Area of acceptability.</i>	<i>Number above average</i>	<i>Number Average</i>	<i>Number Below Average</i>	<i>Mean score based on a scale</i>
1. Choice as leader	5 (18.5%)	22 (81.5%)	—	2.19
2. As study mate	10 (37%)	15 (55.6%)	2 (7.4%)	2.3
3. As trip mate	10 (37%)	13 (48.1%)	4 (14.8%)	2.22
4. To discuss with	9 (33.3%)	11 (40.7%)	7 (25.9%)	2.07
5. To ask a favour of	10 (37%)	10 (37%)	7 (25.9%)	2.11
6. To accompany on an outing	5 (18.5%)	13 (48.1%)	9 (33.3%)	1.85
7. To share food with	10 (37%)	7 (25.9%)	10 (37%)	2.0
8. As confidant	6 (22.2%)	12 (44.4%)	9 (33.3%)	1.89
9. To play with	13 (48.1%)	6 (22.2%)	8 (29.6%)	2.19
Mean %	32%	45%	23%	

The results from the two instruments tend to support the hypothesis 3 which deals with effective outcomes of the project.

IV. Monitoring of the Educational Progress of the Products of SYPP

Introduction

By December 1975, when the first crop of products of the Project were graduating from primary education level to secondary education level, there was a need felt to follow them up throughout their secondary education and beyond with a view to monitoring their academic progress vis-a-vis that of their non-Project counterparts.

The first step toward monitoring of the academic progress of the SYPP products was taken in 1975 to coincide with the graduating time of the first crops of the products of the Project. From the available data on the experimental subjects and members of the control group, one thing became very evident — that the experimental subjects stood in good stead when compared statistically with the control group. A significant proportion of them gained entry into secondary schools through competitive entrance examinations in 1975 in contrast to their counterparts in the control

group. They all passed the first leaving certificate examination they sat for in November, 1975 showing significant academic superiority over their counterparts in subjects like Yoruba, Arithmetic, Science and Social Studies.

Monitoring in Secondary Schools

Due to the fact that the first set of products of the SYPP were admitted into different schools in Nigeria, there was the need to limit the monitoring exercise to a few schools in Ile-Ife due to lack of sufficient funds and personnel to carry out a large-scale exercise. To monitor the products' progress in the selected secondary schools in Ile-Ife, the assistance of the principals of the schools concerned was sought. Their attention was called to the Project pupils in their schools and they were asked to report on a yearly basis the progress of the project pupils in their schools in the areas of school work, co-curricular activities and general behaviour. It is significant to note that with a very few exceptions, the performances of the SYPP products were rated satisfactory and above average by most of the principals concerned with regard to academics, co-curricular activities and manners.

It was not until September, 1979 when the Project had folded up the experimental and control primary schools used for this study that it was possible for the Institute of Education to deploy one of the staff of the Project on a full-time basis to collecting data from the selected secondary schools in Ile-Ife for the purpose of monitoring the academic performances of the Project pupils in those secondary schools. Four of the schools selected in Ile-Ife for monitoring purposes were:

1. Our Lady's High School
2. Urban Day School
3. Moremi High School
4. Ooni Girls High School

In all the schools sampled by the Project data collector between 1979 and 1985, the reports on a great majority of the Project products have been very encouraging. A good number of them showed consistent good performance from class to class in their various secondary schools. Their examination results were found to be well above average in most of the school subjects. Pupils demonstrated superior abilities in most of the school subjects they were examined on. And when contrasted with their classmates in subjects like Yoruba, English Language and Mathematics, the Project products were found to be at an advantage academically.

The monitoring of the Project products did not terminate at the secondary education level. The products' performances at the tertiary level of education were also being monitored. At the time of writing this report, 17 of the Project products are known to be offering courses in institutions of higher learning in the country. Table 28 overleaf, summarizes some of the available data on the seventeen subjects. In addition, the Project Executive had just caused an advertisement to be put in some of

the Nigerian dailies for the products of the Project to furnish the Project's secretariat, that is, Institute of Education, with details of their educational pursuits.

Table 28

Some SYPP Products in Institutions of Higher Learning in Nigeria.

<i>NAMES OF STUDENTS</i>	<i>PLACE OF STUDY</i>	<i>NO. OF YEARS</i>	<i>COURSE OF STUDY</i>
1. Julius Adewuyi	Unife	5 years	Pharmacy
2. Kayode Fayokun	Unife	4 years	Arts
3. Arinpe Olufajo	Unife	4 years	Education
4. Bunmi Adegoke	Unife	4 years	Med/Rehabilitation (Physiotherapy)
5. Adewuyi Salako	Akure	2 years	Agriculture
6. Ajisekola Julius	S.D.A. Ife	3 years	Nursing
7. Toyin Olasoji	S.D.A. Ife	3 years	Nursing
8. Bose Agunbiade	S.D.A. Ife	3 years	Nursing
9. Bunmilola Olaoye	UPE Ife	2 years	Teaching
10. Nike Adeyemi	Unife	4 years	Bio - Chemistry
11. Toowo Okeyode	Ilesa	3 years	N.C.E. Agric.
12. 'Yinka Okubena	Unife	5 years	Agric.
13. Bisi Oyesiji	Unife	5 years	Pharmacy
14. Adewuyi 'Gbenga	Unife	3 years	Arts (Yoruba)
15. Odunmorayo Fabunmi	Unife	4 - 7 years	Sciences
16. Olayinka Okubena	Unife		
17. Derin Ologunde	Unife		

It is significant to note that from all available information, the SYPP products in institutions of higher learning in the country are proving their mettle.

PART FOUR

**Conclusions, Implications and
Recommendations**

IX

Conclusions, Implications and Recommendations

Governments' Reaction to the Project

In May, 1977, the Institute of Education organized a two-day seminar to which Commissioners of Education, Permanent Secretaries and Chief Inspectors of Education of the five Yoruba speaking States of Ondo, Oyo, Ogun, Lagos and Kwara were invited. Four of the five states were represented, while Kwara State was unavoidably absent. The Ford Foundation was also represented at the Seminar. The objective was to present the Project officially to these governments in an attempt to promote the use of Yoruba medium at the primary level of education.

Every aspect of the Project was presented at the seminar and a great deal of stimulating discussions took place. The theme of the Seminar was 'An Overview of the SIX—YEAR PRIMARY PROJECT'. The participants visited the Project school in Ife and examined the 146 textbooks produced by the Project. At the end of the seminar, the following Communique was issued by the participants at the seminar.

1. The Seminar noted with interest the history of the Six Year Primary (Yoruba) Project.
2. The Seminar also agreed with the philosophy that the child learns better and more effectively in his mother tongue or first language than in a second language.
3. The Seminar noted with great interest the four-point objectives of the Project:
 - (a) to use the Yoruba language as the medium of instruction throughout, in order to demonstrate that Primary Education when given in the child's mother tongue or first language rather than in a second or foreign language, is more effective and meaningful;
 - (b) to teach the English language effectively as a second language;
 - (c) to develop a primary education Curriculum with an adequately strong surrender value - since Primary Education is terminal for the majority of Nigerian children;
 - (d) to develop materials together with appropriate methodology for effectively teaching the prepared curriculum.

4. The Seminar expressed satisfaction with the University of Ife Six-Year Primary (Yoruba) Project Experiment and the materials developed.
5. The Seminar recommended the setting up by the Ministries of Education in Yoruba speaking States of necessary machinery to examine the materials already developed at Ife with a view to making them available for wider use.

Experimental Adoption of the Project by Oyo State Government

In 1985, the Oyo State Government, one of the four Yoruba speaking states of the Federal Republic of Nigeria, decided to introduce the Ife Six Year Project into its primary schools in January 1986 on a trial basis. Oyo State has an estimated population of 12 million Yoruba speaking people. The Ife Project organized a series of teacher training classes for 70 tutors who in turn trained 700 teachers who were to teach 20,000 primary one pupils in selected primary schools in the state. In 1987, a second group of 20,000 children were admitted to Year One while the 1986 class moved to the second year of the programme, making a total of 40,000 children and 1,400 teachers in the Project as of 1987. In January 1988, another set of 20,000 Primary one pupils were enrolled in the Project, making a total of 60,000 pupils and 2,100 teachers.

The State Government adopts the programme as a pilot Project. It plans to extend it to cover the entire primary school system by 1989, thus covering the primary school population which stands at 2 million pupils at present.

Meanwhile, 10 of the 21 states in Nigeria are using some of the Project published books. In Ogun, Ondo, Oyo and Kwara States, at least 2 million children are using some of the Project materials in the Yoruba language.

Conclusions

There was the assumption that no Nigerian language was rich and flexible enough to express scientific concepts and ideas. Mathematical concepts also, it was believed, could not be expressed in any Nigerian language; and so for years, the thought of making a break-through in these areas was never conceived. When the Ife Project declared its intention to teach mathematics in a mother-tongue, it was regarded as a wild goose chase. The intention of course was that, if it was possible to perform this 'feat' with Yoruba as a medium of instruction, it might be possible to try it with other Nigerian languages, and this could lead eventually to discovering a very versatile Nigerian language which might be adjudged and decreed the national language for purpose of government business, commerce and education.

Apart from local and national prejudices against the use of a Nigerian language, it might be conceded that its use at the university level would create serious problems

in terms of personnel and teaching materials. But judging from the Ife experience, such concept or problems could only be ascribed to fear of the unknown. It should be realized that once the fundamentals in terms of expression of concepts and other terminologies could be settled at the foundation level, subsequent stages would not present much difficulty.

One of the great lessons learnt from the Ife Project is the principle of borrowing, coining and adoption in expressing a new concept or idea foreign to the mother-tongue. This is not strange neither is it peculiar to Nigerian languages. The English language is replete with terms borrowed or adapted from other languages of the Indo-European or Germanic group. Without unduly belabouring the issue, one or two examples of English vocabulary would suffice; words like *encore*, *restaurant*, *champagne*, *coup*, *elite*, *rapport*, *detente*, tell a story.

Ife experience has also proved the immense possibilities there are for the use of any language. The stock of new words that has been unearthed since the Project addressed itself to the use of Yoruba in expressing ideas and concepts has been revealing and this has been made possible through co-operation with three sets of people, viz:

- (a) the illiterate but knowledgeable members of the society;
- (b) the literate, particularly the aged members of the society; and
- (c) men and women steeped in the knowledge of traditional culture.

Because of the various interests that they represent, and because of the diverse lexis that each interest commands, the blending of the lexis and registers peculiar to the many interests has resulted in the enrichment of the mother-tongue, Yoruba.

The Travails of Choosing a Language

The idea of conducting primary education in the mother-tongue in the chosen locality was accepted with mixed reactions of enthusiasm and scepticism. The immediate circle of colleagues of the organizers were enthused and were prepared to co-operate in the venture, looking forward to the outcome of an educational revolution or is it evolution? It was this group of people who, among others, played the role of resource-persons both in respect of the language and the curriculum content.

On the other side were those who were opposed to the whole idea of using mother-tongue as a medium of instruction, and this group was a formidable one as they represented various opposing interests. The group, strangely enough, was motivated by diverse causes which may be classified as:

- (a) Ignorance
- (b) Jealousy, and
- (c) Scepticism.

We make bold to say that of the three categories, the third tended to be the most formidable and it found ready sympathizers in the first group which it found easy to confound by its method of obscurantism.

One might say that the opposition of the uninformed citizens to the use of mother-tongue for school or formal education in the Nigerian context was natural and justified. For years, since they got to know of western brand of formal education, the pattern of school operations was that in which the ability to speak English fluently and learn the curriculum courses in English would guarantee the learner eventually a white collar job. The proposed departure from this pattern by the Project organizers was, therefore, an anathema to them.

Further, a section of the uninformed group believed, wrongly of course, that the proposed use of the mother-tongue, Yoruba, was a calculated design to deprive their own children of the opportunity of learning to speak the English language which was, it was believed, a badge of the educated. Some of these antagonists even went to the ridiculous level of accusing the organizers that they were out to introduce the measure to the detriment of the children of the ordinary citizens since their (the organizers') own children had gone beyond the primary school stage in education.

However, it was not difficult to convert the antagonists who were honestly opposed to the proposed use of the mother tongue from sheer ignorance of the educational advantage in laying a foundation through this medium. From the genesis of the programme, English as a second language had been included in the selected curriculum courses and was being taught as any other school subject in its own right. The erroneous idea carried by the uninformed group was that English would not be taught at all. And so, when in less than six months the children in the experimental class were performing better in English than their counterpart in the control classes within the same given period, their opposition gave way to indifference and their indifference finally to the support of the Project. What the uninformed group needed was first a dialogue for information, and next a proof of the expected result of the experiment. It was not too difficult to meet the two requirements.

The case of the second group was quite a natural one: why shouldn't it be my own language? In a multi-lingual society, any preference for one language in an issue like this would readily suggest a position of strength and superiority; but this could soon be resolved with the yard stick of *merit*. It is obvious that the language that has a long history of usage with the concomittant development and improvement would recommend itself for adoption by reason of its richness and flexibility.

In the case of the Ife Experiment, this group was probably not strong. First and foremost, the Project was located in a setting where Yoruba is the predominant language. The linguistic variants amongst the Yoruba language speakers in the locality even proved a source of strength to the adoption of the language for the experiment. All the same, there existed a minority group in this category whose jealousy was aroused by the fact that their children were going to be educated via a 'foreign' medium. This objection was, of course, very feeble since the children of these parents

in this minority group use Yoruba as a language of interaction in the community after school hours.

The last category, the sceptics, was the most difficult to deal with. They were the most vocal, the best educated and, unfortunately, ill motivated in their opposition. They could best be described as the blind adherent of the 'status quo'; all they stood for was no *change*. It was difficult for them to envisage the growth of the Yoruba language to be able to accommodate the demands of teaching science and mathematics at the secondary and higher levels. It is never in the nature of the sceptic to try an experiment which may be successful or otherwise, but he can be persuaded to shift position, depending upon the forces against his stance.

In a larger community, however, like a state or a whole geographical entity but at the same time multi-lingual, the prejudice may be by far deep seated. The elite of the society with vested interest in higher education would not readily yield to a change that was likely to threaten their entrenched position.

The elitist group divides into two categories: First, there was the class which belonged to the university system — the academics and the administrators. The highly sophisticated amongst them found it extremely difficult to peep down from their ivory tower to appreciate the necessity of finding a solution to the age-long problems of the indigenous learner having to battle with both language of instruction and the course content at one and the same time. They argued that if they could succeed in this situation, why can't others? For them, no African language can achieve in this century what has taken the English language hundreds of years to accomplish. These die-hard traditionalists are oblivious to current language development in other parts of the world e.g. India, Sri-Lanka, Tanzania, Somalia, Ethiopia etc.

The other arm of the elitist group was perhaps less fanatical in their opposition to change. Even if they could see the achievements of the pupils taught through mother-tongue medium at the primary school level, they could not conceive how such break-through could apply at both the secondary and the tertiary levels.

One major thing that the Ife Experiment has achieved is that apart from the fact that quite a sizeable percentage of the foundation students had successfully gone through both secondary school and tertiary programmes, they had done so with greater ease than their counterparts from the regular or control schools; and have proved better integrated individuals, well-adjusted, more resourceful and decidedly self-reliant.

Implications of Choosing a Language

The proposal to use mother-tongue as a medium of instruction for formal education is beset with a number of problems. These problems can be of varying degree of intensity depending on whether the area of operation is monolingual, bilingual or multilingual.

One would tend to think that in an area which is monolingual, there would be no serious problems arising from the decision to use the mother-tongue as an instructional medium, depending on how advanced the development of the indigenous language is in its potency to cover all areas of human endeavours — social, cultural, business, commercial and technical.

If the language is deficient of course in any of these areas of transaction, there will be the utmost necessity to establish facilities for linguistic research into those aspects of the language that need strengthening or improvement. In a monolingual community however, there are a few variants which in effect would add to the richness of the language.

In a bilingual community, the problem of choice would depend on whether one language is indigenous and the other, foreign; or whether both are indigenous but spoken in different parts of the country. If the decision is to adopt the mother-tongue as an instructional medium, it is obvious that all efforts would be directed towards the development of the mother-tongue to be able to achieve the purpose of education. And since it would be a national policy, all resources — cultural, political, economic and legal — would be mobilized to procuring the desired end-result.

In the circumstances of two different languages, each predominantly spoken in different parts of the country, the choice of which of the two would be adopted is likely to lead to agitation between the two groups. It is not unlikely that either group would wish to bring all sorts of pressure to bear in its favour for the adoption of its own brand of the language; but support and eventual choice would be weighed in favour of that language which is more developed with potentiality for further development that could make it take care of the linguistic aspects of all human endeavours and satisfy the quest for knowledge.

Lastly, in a multi-lingual state, the Ife Experiment has provided a paradigm for an approach to the choice of an indigenous language as an instructional medium. There are certain aspects of the Experiment which at this stage can be highlighted for the purpose of adoption.

The Ife case revealed that at the inception of the Experiment, there were teachers who spoke very fluently the chosen mother-tongue — Yoruba both for formal and informal purposes. In fact, Yoruba satisfied (and still satisfies) the needs of its users for all purposes except as a medium of education. It was hardly used for teaching any subject on the school time-table. Even when it was used to introduce primary pupils to their cultural heritage such as for describing marriage customs, festivals, or story-telling, there was never any attempt to pay attention to grammar, lexis or register, sentence-structure etc.

When therefore the class teachers in the Experimental class came to handle the teaching of subjects like Mathematics (*matimatiki*) and Science (*Sayensi*) in the mother-tongue, their inadequacy became apparent and there was an obvious need to give the teachers some training under a crash programme.

The training of the teachers took many forms both in character and duration. First, there was orientation of the teachers to the philosophy of the Project, as this was considered basic to their effective performance in the classroom, using the mother-tongue. This was necessary as it was soon discovered that teachers who were not 'converted' failed to relate not only to the children but also to the newly designated courses. It became inevitable that some of these teachers were dropped somewhere along the line.

Workshops were mounted periodically at week-ends and during vacation periods during which the teachers were exposed to new methodology and the use of instructional materials designed for effective classroom teaching. Demonstration lessons were also held by experts on various courses for the benefit of those handling them in the classroom. One of the habits the teachers were trained to cultivate was the use of creative language during teaching, another was to explain any expression involving new vocabulary or concepts so as to facilitate pupils' learning effort as well as enrich and expand their vocabulary. To assist teachers in this task, they were themselves encouraged to prepare their lesson notes in the Yoruba language for classroom instruction; this put the teachers themselves in a state of preparedness to assist pupils and ensure a free flow of communication.

As an innovative Project, the training of the teachers was not restricted to local resources. As the occasion demanded, overseas training was planned for those of them specializing in certain areas of pedagogy, and this was done by instalments. The purpose of the scheme to have teachers specially trained for the experiment was two-fold: first, to ensure proficiency in the handling of the medium for the purpose of classroom instruction; and two, to obviate the linguistic difficulties that the teachers themselves might have with explaining new concepts to young ones. In addition, it exposed the teachers to the potentialities of the indigenous language as a tool for research and exploration.

The training abroad was calculated to enable the teachers make a comparative study of the mother-tongue and the second language which was largely used as a medium of instruction in the past. The courses to which the teachers were exposed were made up of lectures, seminars, and observation in selected schools in the neighbourhood of the university to which they were attached. This experience reinforced the teachers' competence in the following areas:

- mother-tongue teaching methods,
- group and individual teaching,
- classroom organization,
- remediation of learning difficulties,
- the teaching of English as a second language
- the teaching of Social Studies,
- the teaching of Mathematics and Science and
- the evaluation of language achievement.

In addition to the foregoing major forms of training, there were other kinds of training 'on demand', when workshops were held for text writing during long vacation, or for introducing new materials, for evaluation or 'on-the-job' training.

Another side-effect or indirect result of the entire programme was that of public relations. With a subject like Social and Cultural Studies, the Project needed to relate with parents of the children as well as some eminent citizens with knowledge of the culture, the ethos and the mores of the society for briefing on essential issues. This was done by either inviting these citizens to the school premises or visiting them in their homes to collect information related to topics on hand. This created an atmosphere of mutual understanding and beneficial interaction which led to establishing a strong rapport between the teaching staff on the Project and the prominent citizens in the community. Many of the latter served as resource-persons in various areas of curriculum development.

Achievements of the Experiment

At this point, it might be appropriate to recount some of the palpable achievements of the Project which, as once mentioned, started as a venture of faith and hope. The young ones who were innocently enrolled in the Experiment nineteen years ago were now out of school. The monitoring team established by the Project organizers for a follow-up exercise has had quite a task but a pleasant one in tracing the products of the Experiment, and has brought back documented reports on the performances of the children.

Some of these children who started the Project could not go beyond the primary school for reasons that had nothing to do with the nature of the Experiment. Some dropped out because of sickness and others for lack of funds.

Those who gained admission to secondary schools on their own merit, also gained admission to various universities, or to the Colleges of Education and Polytechnics. Those admitted to the university came out with degrees in various fields. Very briefly, it has been proved that the foundation laid with instruction in the mother-tongue has not turned out to be detrimental to the children's progress at higher levels.

Apart from the academic achievement of these children, evidence has it that those of them who had turned to technical pursuit, have proved more resourceful than their counterparts from other schools whom they met on the technical plane. The Six Year Primary Project children have demonstrated greater manipulative ability, manual dexterity and mechanical comprehension all of which they had acquired at the primary school level through mother-tongue as the medium of instruction. In their relationship to their colleagues, the Project children have demonstrated a great sense of maturity, tolerance and other affective qualities that make them integrate easily and readily with those they come in contact with.

One factor that greatly and positively influenced the affective and psychomotor quality and ability of the Project products was the Social and Cultural Studies course given to them in their mother-tongue. It was in this area that the school very closely related to the homes, and by bringing the teaching of this course to reflect the mores of the community which is rooted in its culture, it greatly influenced the children and moulded their lives in the right attitude and direction.

The Ife Experiment aptly demonstrated the importance of co-operation in educational activities. This is of course highly essential in relation to a research Project or introduction of a novel practice involving human interest and destiny.

The academics like university professors became aware that there was much that parents not in the academic world could contribute to the development of intellectual and moral growth of the learner. In the area of Social and Cultural Studies, the contribution by parents and other members of the community who acted as resource-persons was tremendous and it opened a new vista of other dimensions.

The practising teachers who might be regarded as technicians in the classroom, supplied the university professors with needed on-the-spot results of the theory put to test in the classroom. In most of the courses introduced by the Project organizers, the contents expressed in the syllabuses were either new or radically modified to conform with the ideology of the project. Consequently, it was left to the classroom teachers to run the trial-tests in the classroom. In spite of guidelines on methodology, the outcome would turn on the unquantifiable quality of the teacher. It is here that the co-operation between the curriculum writer and the practising teacher is essential. It is more than the ordinary sentiment of the minds so that the understanding of the 'creator' of the syllabus can be shared by the classroom 'curator' which would lead to honest translation of theory into practice.

In the practising arena, the co-operation of the classroom teacher and the pupil is inevitable. The teacher may not be able to teach Science (Sayensi) to Olu unless he understands both Olu and Science. Assuming the teacher can take Science for granted, because of his academic equipment, Olu cannot be so regarded because he is a complex entity, unlike Science. Without the child co-operating and this co-operation takes many forms, the combined efforts of the professor and the classroom teacher could be set at naught.

The Ife Experiment is humbly acclaimed the first of its kind in Africa or at least, in Nigeria. Thus with the initial opposition stemming out of prejudices both rational and irrational, if the pupils of the Experimental school had not co-operated, the honest efforts of the Project organizers could have been disastrously frustrated. This could have strengthened the opposing interests and worse still, forced the school authority and the government that owned the school to withdraw sympathy for the cause and deprive the Project of moral, financial and even personal support. This again, proves the programme to be a fine example in co-operation.

At the beginning the school selected for the experiment was (and still is) owned by the government of the Oyo State (formerly part of the Western State). The staff,

from the head-teacher to the least, were supplied by the government who was also responsible for the pre-service training of almost all of them. It was (and still is) the same government that pay the salaries of all these teachers. It could therefore be easily inferred that without the support of the government, the Project could not have taken off the ground.

In the school system still operating, the government has the responsibility to deploy its staff as it deems fit, and so, continuity of service of any teacher in any one school is not guaranteed. With the kind of experiment the Project organizers were running, it was evident that constant shifting of teachers from and to the school of operation would surely upset the experiment. With this anticipated danger in mind the organizers approached the government through the Ministry of Education which has the immediate control of the school. They acknowledged the right of the government to deploy its staff according to the needs of the schools; but at the same time, it was explained to the Ministry how the vagaries of posting of teachers in the chosen school(s) for the experiment would disrupt the operation of the programme. The concession by the government to grant the continued stay of teachers involved in the experiment for the duration of its life is yet another fine example in co-operation that the Project organizers enjoyed in the whole venture.

Conclusions

As of now, the experiment in the use of mother-tongue at the primary education level has produced valuable information and a wealth of educational experience. So far, only one state out of the four covered by the indigenous language-Yoruba-has adopted the programme on trial basis. It has been proved that primary education conducted in the mother-tongue — Yoruba — leads to greater result in permanent literacy and numeracy: it has greater surrender-value and makes the child a better integrated and adjusted citizen in his community.

There is convincing evidence that teaching at the primary school level via the mother-tongue is a rewarding activity with lasting salutary effect. The Ife Experiment brought to the fore the significance of the co-operation between the school and the home. The parents came to the realization of the truth that the on-going activities within the classroom walls were not opposed to the interest of the home; rather, they were to complement the informal education of the home, enrich and stabilize it, or where it is deficient, strengthen it.

Through this co-operation and other incidental factors, the mother-tongue has become greatly enriched. New ideas and concepts springing out of certain courses or curriculum contents have led to the discovery of new registers, lexis and language structures. It is significant to note that the Experiment has helped tremendously in streamlining the Yoruba orthography which has become universally adopted by all writers in that language.

Another momentous side issue of the Experiment was the evolution of a typing machine (typewriter) with Yoruba characters. The far-reaching result of this is the possibility for any enterprise to produce manuscript in Yoruba with the pure Yoruba alphabet without resorting to make-shift-device of using or substituting English letters for Yoruba words like *OSUN* and not *OSUN*; *SAGAMU*, not *SHAGAMU*; *OSOGBO* and not *OSHOGB* etc.

In the academic world, the Ife Experiment has not failed to make its impact. The exercise opened up possibilities for research activities. Foreign and indigenous nationals who had been involved in the evaluation exercise of the Project had used some of the results to work for masters and doctorate degrees; even undergraduates of the home university of the Experiment, after their first degrees, have found areas of academic interest into which they researched for their second or third degree.

Observations

When the idea of using a mother-tongue as an instructional medium was conceived, it was on the premise that the existing system of education then had not helped the learner to acquire permanence in literacy and numeracy. It was also observed that the system did not produce such citizens who could be credited with the quality of self-reliance and initiative; hence the decision to cultivate these young ones through their mother-tongue, thereby instilling in them these desirable qualities rooted in their culture and capable of making them reliable and dependable citizens.

So it could be affirmed that with all good intentions, supported by infrastructures to translate the intentions into action, a national language could be developed to take care of formal education to the level of secondary education and beyond. It is conceded that materials for higher education especially at the university level are international, but even then, when it gets to that level, if there has been gradual evolution and development of that African language, it should be able to cover all the linguistic needs of human activities.

Prejudice apart, if Gujarati, Tamil or Polish could be used to pursue formal education to the tertiary level, there is no reason, in a multi-lingual community in Africa, why an indigenous language could not be adopted to serve the purpose of education to any level. Yoruba, the mother-tongue of over 12 million speakers has been tried and found capable of satisfying the requirements of primary education as a medium of instruction. By the same token, if the same devotion, diligence, perseverance and dedication supported with financial resources and other facilities could be summoned to the task of language development, it would be possible to harness it (Yoruba) to curriculum teaching at the secondary and tertiary levels.

In conclusion, our thesis is that the choice of an indigenous language, in a multi-lingual African community for purpose of education, that is, a medium of instruction, requires very careful handling. Ethnic rivalry and local prejudices could be easily overcome with honest intention and clarity of purpose. We could say with

confidence that any indigenous language could be used to achieve the object of literacy teaching or education. The same could be said for technical education in a local setting. What would be difficult to achieve, in perhaps a generation or less, is the use of an indigenous language at the university level; but this, too, is not impossible.

It is our view that once science education could be given in an indigenous language, as the Ife Experiment has shown, the path is being cleared for the use of an indigenous language at the university level. The crux of the matter will be a *national* language to be so used. It is here we envisage some problems at arriving on the choice. Even then, if three or more indigenous languages have been engaged in formal education, as is the case with Nigeria and some other-African countries, it is likely that the choice of a national language would fall on that language which appears to be the richest and with linguistic elasticity to accommodate all activities of human endeavours. This may require government legislation.

Finally, if one may drop a hint about the idea of creating a national language through fusing of two or three principal languages, this is a trend that is likely to set back the hands of the clock of development of each language. It is likely, too, to create more problems than it sets out to solve. Even at the primary level, there is likely to be a stand-still of the wheel of progress; we are all likely to be pupils without teachers!

3. *Recommendations For Proposed Replication By Other States*

In order to assist other states, countries or groups to plan for the use of African languages as a media of education, the following recommendation borne out of the experience of the Ife Six Year Primary Project will go a long way in ensuring effective implementation.

- (1) Establish the status of the language chosen. For example (a) what percentage of the community under reference speaks the language? (b) Is it already a written language and does literature exist in it? The answers to these questions will indicate the degree and extent of work to be done in basic language development.
- (2) State clearly the objectives of the Project.
- (3) Prepare a comprehensive proposal for your Project.
- (4) Consult Educational Authorities and possible funding agencies — governmental or private or both.
- (5) Set up machinery for operation, e.g.,
 - (a) an Advisory Body — a large consulting group of experts;
 - (b) a Working Committee
 - (c) an Executive Committee

- (d) Writing Panels
 - (e) a Production Unit.
- (6) Select school(s) for the Project.
- (7) Select adequately qualified teachers.
- (8) Organize initial orientation sessions for all personnel involved (as in 1 to 7 above).
- (9) Set up experimental and control groups. Ensure that both groups are physically separated to avoid contamination.
- (10) Set up evaluation machinery to develop and administer evaluation instruments.
- (11) Organize training programmes, if required for any of the expertise identified above.
- (12) Establish regular workshop sessions of long and short durations for curriculum development and implementation, e.g., Workshops for
 - (a) Syllabus review
 - (b) Text writing
 - (c) Trial testing in normal classroom situations
 - (d) Evaluation — formative and summative.
- (13) Establish a good monitoring system covering the different stages of learning, e.g., primary, secondary and tertiary education, and including those whose education terminates at each level.
- (14) Prepare a comprehensive report at every stage not only for local and immediate consumption but for wider dissemination.

Appendices

- I. Advisory and Executive Committees
- II. The Writing Groups
- III. Ford Foundation Consultants
- VI. Contributors to the Six Year Primary Project
 - V. List of some Secondary Schools where Project Pupils Enrolled after Primary Six
- VI. Categories of "Books" produced
- VII. List of some Visitors to the Project Between 1969 and 1979

Appendix I

The Project Team:

1. The Advisory Committee

Name	Address
1. Professor A.B. Fafunwa	Faculty of Education, University of Ife
2. Professor E.A. Yoloye	University of Ibadan
3. Professor A. Bamgbose	University of Ibadan
4. Professor S.H.O. Tomori	University of Ibadan
5. Professor A. Adetugbo	University of Lagos
6. Professor A. Afolayan	University of Ife
7. Professor J.O. Abiri	University of Ibadan
8. Professor Wande Abimbola	University of Ife
9. Mr. A.M. Laosebikan	Baptist College, Iwo
10. Mr. J.O.B. Adebambo	St. Andrew College, Oyo.
11. Mr. J.O. Odeyale	Wesley College, Ibadan.
12. Dr. E.A. Oyewole	University of Ife
13. Mr. J.A.F. Sokoya	University of Ife
14. Mr. D.A. Ologunde	University of Ife
15. Professor Mrs. B. Osibodu	University of Ife
16. Professor J.I. Macauley	University of Ife
17. Mr. C.A. Adebayo	University of Ife
18. Chief I.O. Delano	Resource person, Ibadan.
19. Professor R.O. Alabi	University of Ilorin
20. Chief J.L. Winjobi	Ministry of Education, Ibadan.
21. Mr. M.A. Makinde	Govt. Teacher Training College, Ilesa.
22. Professor T.A. Awoniyi	University of Ibadan
23. Mr. J.F. Lawuyi	Baptist College, Iwo.
24. Mrs. Marjorie Lowy Shaplin.	The Ford Foundation, Lagos.

2. The Executive Committee

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|---------------------------|-------------------|
| 1. Professor A.B. Fafunwa | — <i>Chairman</i> |
| 2. Mr. J.A.F. Sokoya | |
| 3. Professor A. Afolayan | |

- | | |
|---|-------------------------------|
| 4. The Director, Institute of Education | |
| 5. Professor J.I. Macauley | — <i>Secretary</i> |
| 6. Mr. D. Ologunde | |
| 7. Professor E.A. Yoloye | — <i>Consultant Evaluator</i> |
| 8. Mr. A.M. Laosebikan | |
| 9. Dr. T. Fashokun | |
| 10. Mr. J.O.B. Adebambo | |
| 11. Mrs. C.F. Oredugba | |
| 12. Professor Dibu Ojerinde | — <i>Asst. Evaluator.</i> |

Appendix II

The Writing Groups

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|---------------------------|--|
| Professor A. Babs Fafunwa | — Director of the Six
Year Primary Project
and overall Workshop
Director. |
|---------------------------|--|

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|-----------------------|---------------------------------------|
| Professor A. Afolayan | — General Supervisor at
Workshops. |
|-----------------------|---------------------------------------|

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|-------------------|---|
| Mr. D.A. Ologunde | — Co-ordinator for pro-
duction at Work-
shops. |
|-------------------|---|

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|-------------------|--|
| Mr. J.A.F. Sokoya | — Controller of Finance
at Workshops. |
|-------------------|--|

(a) English

- | | |
|---------------------------|-------------------|
| Mrs. Marjorie Shaplin | — Ford Foundation |
| Professor Juliet Macauley | |
| Mr. Tunji Adebayo | |
| Professor A. Adetugbo | |
| Dr. J.A. Akere | |
| Mrs. A.O. Adedeji | |
| Mrs. C.A. Fawole | |
| Mrs. L.A. Akioye | |

(b) Yoruba

Professor A. Afolayan
Mr. D.A. Ologunde
Professor J.O. Abiri
Dr. J.O. Ajimoko
Professor T.A. Awoniyi
Mrs. M. Afolayan

(c) Mathematics

Mr. A.M. Laosebikan
Professor Mrs. B. Osibodu
Mr. J.A. Ogunwuyi
Mr. A.A. Afolabi

(d) Science

Professor A.B. Fafunwa
Professor R.O. Alabi
Chief J.L. Winjobi
Dr. J.O. Afolayan
Dr. T.O. Fasokun

(e) Social and Cultural Studies

Mr. J.A.F. Sokoya
Mr. J.O.B. Adebambo
Mr. J.F. Lawuyi
Mr. S.O. Onafowokan

Evaluation Staff: Six Year Primary Project

Professor E.A. Yoloye	Chief Consultant Evaluator:
Dr. M.O. Olasehinde	Assistant Evaluator:
Professor J.B. Ipaye	
Professor Dibu Ojerinde	

Evaluation Test-Writing Group

Professor Dibu Ojerinde
Professor Diran Taiwo
Dr. A. Adeyinka
Mrs. C.F. Oredugba

All members of the various writing groups as listed.
All representatives of the Western State Ministry of Education.

A. ST. STEPHEN'S 'A' MODAKEKE, ILE-IFE, SCHOOL STAFF

HEADMASTERS

SPECIALIST TEACHERS

HM — Mr. T.A. Onigbinde	Mrs. L.O. Akioye (Eng)
ASST — Mr. A.O. Egbedeyi	Mrs. C.A. Fawole (Eng)
HM — Mr. J.O. Odumo	Mrs. M. Afolayan (Yoruba, Rem. Tr.)
ASST — Mr. T.A. Oni	Mrs. W.T. Osoba (Eng)
HM — Mr. A.A. Adelani	Mrs. B.O. Anjorin (Eng)
ASST — Mrs. C.F. Akande	

CLASSROOM TEACHERS

Mrs. D.O. Arimoro	Mr. R.O. Olabode
Mr. J.S. Afolayan	Mrs. C.O. Awosanya
Mr. J.O. Ifesanmi	Mrs. G.A. Adeoti
Mr. M.O. Eniola	Mr. I.A. Salako
Mrs. E.O. Ilori	Mrs. H.A. Olorunwumi
Mr. A.O. Awofolajin	Mrs. J.S. Jibodu
Mrs. F.O. Fatudimu	Mr. S.O. Oyatoye
Mr. T.O. Oke	Mr. M.O. Odewande
Mr. C.A. Oyeniyi	Mrs Ayoola

B. THE PROLIFERATION SCHOOL TEACHING STAFF

Name of Teacher

Name of School

Mr. T.A. Ogedengbe	N.U.D. Muroko Road, Ilesa
Mr. L.A. Idowu	—do—
Mr. S.B. Awodele	G.T.T.C. Demon. School, Ilesa
Mr. J.F. Ogunlade	Methodist School, Oke Omi, Osu
Mr. D.O. Feyisitan	—do—
Mr. M.A. Oso	U.M.C. Demon. School, Ibadan
Mrs. C.O. Komolafe	—do—
Miss C.O. Ogunrinde	L.A. Idiophe School, Oyo
Mr. J.A. Adeyemi	—do—

Mrs. V.N. Odebisi	St. Andrew's College Demn. Schl. Oyo
Mr. I.A. Adebisi	D.C. School, Elemo, Iwo
Mrs. J.A. Oyesoro	Baptist Demon. School, Oke-Odo, Iwo
Mr. M.O. Amoo	—do—
Mr. R.O. Rahman	D.C. Araromi Iwo
Miss I.O. Olabode	—do—
Mrs. F.A. Olagbaju	St. Philip's Ang. Schl. Iloro, Ife
Mrs. C.A.C. Agunbiade	—do—

Co-ordinators of the Proliferation Schools:

- | | |
|-------------------------|---------------|
| (a) Mr. A.M. Laosebikan | — 1970 — 1977 |
| (b) Rev. N.O. Owopetu | — 1977 — 1980 |

General Co-ordinator of the Entire Project

- | | |
|-----------------------------|---------------|
| (a) Mr. J.A.F. Sokoya | — 1970 — 1977 |
| (b) Professor J.I. Macauley | — 1977 — 1980 |

Appendix III

Ford Foundation Consultants and The Six Year Primary Project Team

A. The Ford Foundation Consultants and Representatives

<i>Name</i>		<i>Duration</i>
1. Mrs. Marjorie Shaplin	<i>Main Consultant</i> to the Project. Played a leading role in providing the Blue print for the Project and for organizing training programmes.	7 years
2. Mr. Melvin Fox	The Ford Foundation representative in charge of education. Assisted in particular, in providing valuable communication channels between the Ford Foundation and the Project team in his capacity as the Foundations' chief monitor of the Project.	7 years

3. Dr. K. Bigelow	Ford Foundation officer in the education unit, Lagos. Worked with the Project team on some aspects of planning.	about 2 yrs.
4. Dr. Ralph Harbison	Consultant Evaluator	one year
5. Mr. D. Bell	Observers assigned by the Foundation	
6. Dr. W.K. Gamble	for the purpose of assessment.	
7. Mrs. Betty Skolnick		
8. Dr. Richard Tucker	Consultant Evaluator Assigned by the Foundation to evaluate and advise on assessment processes.	3 weeks.
9. Mr. Gary Cziko	Visiting Evaluator. Assigned by the Foundation to assist with evaluation tests and reports	

Appendix IV

CONTRIBUTORS TO THE SIX YEAR PRIMARY PROJECT

A. GENERAL

UNIVERSITY OF IFE

- 1) Contribution of staff from the inauguration of the Project in the academic year 1969/70.
- 2) Provision of office space and administrative facilities throughout the duration of the primary phase.
- 3) Provision of supplementary funds in 1977 which was the end of the Ford Foundation Grant period.

THE FORD FOUNDATION

- 1) Provision of the initial operational fund in three grant instalments, covering the period 1970 to 1976/77. (For all running costs of the Project).
- 2) Provision of additional, occasional supplementary funds as requested for by the Project for special evaluation exercises between 1976 and 1979.
- 3) Training facilities, both locally and abroad.
- 4) Consulting personnel and facilities.

THE WESTERN STATE MINISTRY OF EDUCATION

Free access to

- (a) the schools specially selected for the Project;
- (b) teachers specially selected for the Project;
- (c) Inspectors requested for, to evaluate the Project.

APPENDIX V

LIST OF SOME SECONDARY SCHOOLS WHERE PROJECT PUPILS WERE ADMITTED

ILE-IFE

1. Modakeke High School, Modakeke, Ife
2. Our Lady's Girls High School, Ife
3. Origbo Anglican Grammar School, Ipetumodu
4. St. John's Grammar School, Ife
5. Anglican Grammar School, Ife
6. Ife Girl's High School, Ife
7. Oranmiyan Memorial Grammar School, Ife
8. Origbo Community High School, Ipetumodu
9. S.D.A. Grammar School, Ife
10. Moremi Grammar School, Ife
11. Osi-Soko Grammar School, Ife
12. Olubuse High School, Ife
13. Oluorogbo High School, Ife
14. Ara Community Grammar School, Ife
15. Urban Day Grammar School, Ife
16. C.A.C. Grammar School, Edunabon, Ife
17. Islamic Grammar School, Modakeke, Ife
18. St. David's Modern School, Ife
19. Apostolic Modern School, Ife
20. A.U.D. Modern School, Iloro, Ife
21. Anglican Modern School, Ife
22. St. Peter's College, Ile-Ife.

ILESA

1. Babalola Memorial Girls Grammar School, Ilesa
2. C.A.C. Grammar School, Ilesa
3. Hope Grammar School, Ilesa
4. St. Lawrence College, Ilesa
5. Atakumosa Grammar School, Ilesa
6. George Burton Grammar School, Ilesa
7. Methodist High School, Ilesa
8. Owa High School, Ilesa
9. Ilesa Grammar School, Ilesa
10. Ijesa Moslem Grammar School, Ilesa
11. St. Margaret's Girls Grammar School, Ilesa
12. Ife-Oluwa Sec. Comm. Modern School, Ilesa
13. Council Secondary Commercial Modern School, Ilesa
14. Community Secondary Modern School, Osu.

IBADAN

1. Queen's School, Ibadan
2. Pupil's Grammar School, Ibadan
3. Fatima College, Ikire
4. Baptist Grammar School, Ibadan
5. Methodist High School, Ibadan
6. St. Anne's College, Ibadan
7. Urban Day School, Ibadan
8. Yejide Girls Grammar School, Ibadan
9. Eyini High School, Ibadan
10. Ajia Grammar School, Ife-Road, Ibadan
11. St. Patrick Grammar School, Ibadan
12. Adekile Grammar School, Ibadan
13. St. Teresa's College, Ibadan
14. Ibadan Grammar School, Ibadan
15. Lagelu Grammar School, Ibadan
16. Government College, Ibadan
17. Loyola Grammar School, Ibadan.

OYO

1. Ilora Grammar School, Ilora Oyo
2. St. Bernadine Grammar School, Oyo
3. Olivet High School, Oyo
4. Iseyin Grammar School, Iseyin

5. Ladigbolu Grammar School, Oyo
6. Community Grammar School, Oyo
7. Urban Day Grammar School, Oyo
8. Awe High School, Awe, Oyo
9. Oranyan Grammar School, Oyo
10. Okeigbo Grammar School, Oyo
11. Abiodun Atiba Grammar School, Oyo
12. Isale-Oyo Community Grammar School, Oyo
13. St. Joseph's Secondary Modern School, Oyo
14. Anglican Secondary Modern School, Oyo
15. Opapa Secondary Modern School, Oyo.

IWO

1. Community High School, Iwo
2. St. Mary's Grammar School, Iwo
3. Baptist High School, Iwo
4. Iwo Grammar School, Iwo
5. Methodist High School, Iwo
6. Ahmadiyya Grammar School, Iwo
7. Aasa Community Com. School, Iwo
8. Ogbagbaa Grammar School, Iwo
9. St. Anthony's Catholic Modern School, Iwo
10. L.A. Commercial Modern School, Iwo
11. Baptist Sec. Modern School, Iwo.

OSOGBO

1. Baptist Grammar School, Osogbo
2. Baptist College, Osogbo
3. Gbongan/Odeomu Grammar School.

OGBOMOSO

1. Federal Government College, Ogbomosho
2. Baptist High School, Ogbomosho.

EKITI

1. Ipoti High School, Ipoti Ekiti
2. Doherty Memorial Grammar School, Ijero-Ekiti
3. Amoye Secondary School, Ikere-Ekiti.

EDE

1. S.D.A. Grammar School, Ede
2. Baptist College, Ede
3. Urban Day School, Ede
4. Timi Agbale Grammar School, Ede.

IJEBU

1. Molusi College, Ijebu-Igbo
2. Adeola Odutola College, Ijebu-Ode
3. Anglican Girls' School, Ijebu-Ode.
4. Mamerin High School, Ijebu-Ode.

IKENNE

1. Mayflower School, Ikenne.

SAGAMU

1. Muslim High School, Sagamu
2. Remo Secondary School, Sagamu.

IKORODU

1. Oriwu College, Ikorodu.

ILORIN

1. Federal Government College, Ilorin.

NEW BUSA

1. Federal Government College, New Busa.

IDOANI/OWO

1. Federal Government College, Idoani.

ABEOKUTA

1. Ayetoro Comprehensive High School, Ayetoro Via Abeokuta.

ONDO

1. Ondo Boy's High School, Ondo
2. St. Joseph's Grammar School, Ondo
3. St. Luke's Grammar School, Ondo
4. St. Monica's College, Ondo.

B. PROGRESSIVE SECONDARY SCHOOL ENTRIES 1974/75 TO 1979/80.

(a) From St. Stephen's A, Modakeke, Ile-Ife

1974/75	—	57 pupils	By Examination
1975/76	—	59 pupils	—do—
1976/77	—	55 pupils	—do—
1977/78	—	58 pupils	—do—
1978/79	—	60 pupils	—do—
1979/80	—	64 pupils	—do—

(b) From the Proliferation Schools

(i) 1977/78 Session

By Examination

1. N.U.D. Muroko Road, Ilesa	1 pupil
2. G.T.T.C. Demon. Schl., Ilesa	8 pupils
3. Methodist, Oke-Omi, Osu	—
4. U.M.C. Demon, Ibadan	10 pupils
5. L.A. Idiope, Oyo	—
6. St. Andrew's Demon. Oyo	12
7. D.C. Elemo, Iwo	—
8. Baptist Demon. Oke-Odo, Iwo	1
9. D.C. Araromi, Iwo	—
10. St. Philip's Iloro, Ife	—
Total	32

(ii) 1978/79 Session

By Examina-
tions

1. Methodist School, Oke-Omi, Osu	28 pupils
2. L.A. School, Idi-Ope, Oyo	37 "
3. U.M.C. Demon. School, Ibadan	33 "
4. Baptist School, Oke-Odo, Iwo	32 "

5. D.C. Araromi, Iwo	45 "
6. N.U.D. Muroko Road, Ilesa	20 "
7. St. Andrew's Demon. Oyo	23 "
8. St. Phillip's Ang. School, Ilaro, Ife	11 "
9. G.T.T.C. Demon. School, Ilesa	15 "
10. D.C. School, Elemo, Iwo	5 "

Appendix VI

Categories of 'Books' Produced

- (a) Books for a wider audience
 - (1) Syllabus
 - (2) Teacher's Guides
 - (3) Yoruba Language course books
 - (4) English Supplementary Readers
 - (5) Publications on the Project
 - (6) Books in subject areas newly introduced
- (b) Pupils' Books for Class Use
 - (1) Text Books — e.g. Mathematics Books
 - (2) Supplementary Readers
 - (3) Books on Display
- (c) Reference Books/ Books on Display in class reserved for the class library.
- (d) Teacher's scheme of work.
- (e) Publications on the Project.

Appendix VII

List of some Visitors to the Project Between 1969 and 1979

<i>Name of Visitors</i>	<i>Position Held</i>	<i>Purpose of Visit</i>
1. Mrs. Majorie Shaplin (paid quite a few visits to the school)	Ford Foundation consultants to the Six Year Primary Project.	To help establish the Project, advise on related issues and set the pattern of training.

Appendix VII cont.
List of some Visitors to the Project Between
1969 and 1979

2.	The Ministry's Syllabus Committee on Yoruba led by Mr. J.F. Ala.	Ministry personnel representative of the Yoruba Association.	To examine the syllabus, schemes of work and the materials produced in Yoruba also to observe class-room teaching through Yoruba medium.
3.	Mr. Melvin Fox and Dr. R. Bigelow (paid quite a few visits to the Project)	Ford Foundation Officers, Lagos Office.	To observe the activities of the Project School and get familiarized with the Project generally
4.	Mrs. C.F. Oredugba (paid two visits)	Chief Inspector of Education, Western State Ministry of Education.	To observe the activities of the Project School and get familiarized with the Project.
5.	Mrs. Ogunbiyi (paid two visits to the school).	Home Economics Specialist, Ministry of Education.	To observe the teaching of Science and advise on an integration of home economics in the Science curriculum.
6.	Professor R.A. Omojuwa	Lecturer Institute of Education, Ahmadu Bello University	To study the Curriculum materials and the set-up of the Project.
7.	Mesdames Ifatureoti, Santos and Popoola	Subject Area Specialists, Inspectorate Division Ministry of Education.	Sent by the Ministry to observe the teaching of subjects in the Project class and report on their findings.
8.	Association for Teacher Education in Africa Conference Members led by Prof. A.B. Fafunwa, its President (1970 — 72)	The entire group attending the Conference at Ife in February 1971.	To get acquainted with the Project and observe as much as possible for subsequent discussion during the Conference.
9.	Mr. Steve Stackpole and Karl Bigelow	Carnegie Corporation and Teacher's College Columbia.	To get acquainted with the Project.
10.	Mr. D. Bell and Dr. W.K. Gamble	Ford Foundation Representatives	To observe the activities of the Project School and to get acquainted with the Project generally.
11.	Professor Ayo Bamgbose	University of Ibadan.	To observe the activities of the Project, particularly the teaching of Yoruba and the use of Yoruba as a medium of instruction.
12.	Dr. Sheldon-Cole	U.S.A. I.D. Washington D.C.	To observe the activities of the Project School.
13.	Dr. J.W. Kirk	Chief Inspector of Education, USAID, Lagos.	To observe the curriculum materials as well as the classroom teaching on the Project.
14.	Mr. Joe Hanbrook	B.B.C. London	To observe Project activities and classroom teaching for a proposed B.B.C. programme on the teaching of English as a second language in Africa.

15.	Mr. Peter Hargreaves	B.B.C. London	To observe Project Activities and classroom teaching for a proposed B.B.C. programme on the teaching of English as a second language in Africa.
16.	Prof. Kong Chu	Georgia Inst. of Tech., U.S.A	To familiarize himself with the activities of the Project.
17.	Mrs. C. Parren	St. Louis University MO	For a brief Post-Graduate study on Innovations in Primary schools in West Africa.
18.	Mr. Melvin Fox, Mr. Betty Skolnick,	Ford Foundation Officers	To observe the activities of the Project School.
19.	Mrs. G. De-Pick and Cary Adams	U.S.A. I.D. African Bureau Washington D.C.	To study briefly the set-up of the Project and the implications in relation to primary education in some parts of Africa.
20.	Mr. Amadou Toure and Mrs. Kadiatou Samoura	Post Graduate students from the Republic of Mali, West Africa.	To study the Project for a term to fulfil part of their Doctoral requirement.
21.	Mrs. Elaine Penderhuges	Child Guidance Clinic, Boston University.	To study the Project briefly as an innovative programme in Primary Education.
22.	Mrs. Mabel Symthe	Phelp/Stokes Founda- tion, New York.	To study the Project briefly as an innovative programme in Primary Education.
23.	Professor. J.O. Obemeata	Principal, Fatima Colle- ge, Ikire, Western State.	To conduct a study of the pupils' cognitive achievement as part of a doctoral requirement under the supervision of Professor B. Yoloeye of University of Ibadan.
24.	Dr. J.A.O. Sofolahan and and	Deputy Chief Inspector of Education, Western State Ministry of Education.	To observe classroom teaching, examine the materials and try to assess the value of Project in order to present an official report to the Commissioner for Education, Western State.
25.	Dr. E.O. Aderinlewo	Western State Ministry of Education.	
26.	Commissioners of Educa- tion, Permanent Secretaries and Chief Inspectors of Education from four Yoru- ba Speaking States: Lagos, Ogun, Ondo and Oyo and their staff.	Professional and Political administrative heads of 4 State Ministries of Educa- tion in Nigeria.	To attend two-day Seminar (May 20 and 21, 1977), entitled: 'An Overview of the Six Year Primary Project' organized by the Project and attended by participants. The Seminar unanimously expressed satisfaction with the Yoruba Project and the materials developed.
27.	Federal Ministry of Educa- tion Inspectors from Lagos.	Chief Federal Inspectors of Education.	To inspect the Six Year Primary Project and make recommendations to the Federal Ministry of Education.

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INDEX

- Affective outcomes, study 116 – 117
 - results of 129 – 130
- Child, pre-school 8
- Cognitive achievement
 - analyses procedure in 113 – 115
 - data collection to 111 – 112
 - demographic data form 111, 113
 - instruments 109
 - longitudinal study of 106 – 115
 - result patterns of 117 – 127
 - sample 106
 - test items in 110 – 111
- Curriculum Development 14, 29 – 61, 101, 105
 - strategies for 28 – 30
- Curriculum Evaluation 14
- Curriculum Implementation 14
- Curriculum materials 28, 102
 - components of 28 – 29
- Curriculum planning 14
- Curriculum primary education 134
- Curriculum primary school 49
- Curriculum Revision, 14
- Education
 - ideology of language in 10 – 11
 - policy of language in 11 – 14
- Education culture 8
- Education, Ministry of 18, 19, 28, 44, 86, 98, 104
 - contributions of 21
 - role in employment of teachers 19
- Education system, Nigeria 3, 8
 - policy on 3 – 4
 - use of mother tongue 3
- Educational policy 4 – 6
 - objectives of primary education 5
- Educational system 2 – 4, 7
 - with the advent of Europeans 2
- Educational system, christian 2 – 3
- Educational system, Islamic 2
- Educational system, traditional 2
- Elementary science 82
- English Language 54, 78, 82
 - as second language 81 – 82
 - composition of writing panel on 54
 - instructional texts on 61
 - production of instructional materials on 56 – 60
 - reading readiness 87 – 89
 - teachers of 85 – 87, 108
 - teaching process for 89 – 90
 - use of instructional materials on 60
 - writing procedure for 55 – 56
- Evaluation, formative 105 – 106
- Ford Foundation 21, 22, 26, 67
 - consultants of 26
 - financial support 21, 26
- Integrated science 73
 - teaching of 73 – 74
- Language roles 82
 - implementation of 82 – 84
- Mathematics 82
 - teaching of 74 – 76
- Mathematics *see* Matimatiki
- Matimatiki, writing of 35 – 44
 - composition of panel on 35
 - problems of 36 – 40
 - procedure for 35
 - textbooks and workbooks in 40, 43 – 44
- Mother tongue 12, 17, 66, 136, 144
 - as a medium of education 9 – 11, 19, 82
 - importance of 9 – 10
 - in education system 3 – 4
 - in production of educational materials 62 – 65
 - numerals in 39 – 40
 - policy on use of 3 – 4
 - teaching of 12
 - training in 67 – 68
- Oluwasanmi, H.A. 22
- Primary education 9, 17, 18
 - aim of 6 – 7
 - curriculum development 17
- Primary Education, post 24
- Primary School Administration 91 – 98

- Primary School system 6
- Primary Schools system 6
- Public examination, Performance 116
 - results of study on 127 - 129
- Sayensi 44
 - composition of writing panel 44
 - evolution of text material 46
 - review of syllabus 44 - 45
 - teaching aids for 46
 - use of mother tongue 46 - 47
 - vocabulary in writing of 47
 - writing procedure for 45 - 46
- School curriculum 13
- Science *see* Sayensi
- Secondary education 16
- Shaplin, J.T. 25
- Shaplin, Majorie 25
- Six-Year Primary, Project 62
 - achievement of 141 - 143
 - active pupil participation in 84 - 85
 - advisory committee to 147
 - books produced for 158
 - choosing a language for 138 - 140
- classroom guidelines for 71
- classroom teachers for 150
- contributors to the 152 - 153
- curriculum development 28 - 61
- executive committee to 147 - 148
- funding 21 - 23
- government reaction to 134 - 135
- implementation of 26
- local resource persons to 92
- monitoring educational progress of
 - products of 130 - 132, 153 - 158
- objectives of 84, 134
- parents contribution to 23 - 26, 91
- planning of the 16 - 22
- problems encountered on the 91 - 98
- problems encountered with the Ministry
 - 97 - 98
- problems relating to pupils in 94 - 95
- problems relating to staff on 95 - 97
- production of materials for 62 - 65
- proliferation schools in 102
- recommendations for 145 - 146
- role of evaluation in the 100 - 132
- role of ministry of education 21, 28
- role of universities
- specialist teachers for 150
- teacher training for 66 - 70
- time-tabling in 71
- visitors to the 158 - 160
- writing groups in 148 - 149
- Social and cultural studies 49, 73, 82
 - development of syllabus for 49 - 50
 - evaluation of programme on 53
 - implementation of curriculum for 51 - 53
 - texts for 50 - 51, 53 - 54
 - writing procedure for 50
- Syllabus, science 47 - 48
- Syllabus, Yoruba 34
 - review of 31
- Teaching materials
 - storage of 93 - 94
- UPE (Universal Primary Education) 5
- Yoloye, E.A. 23
- Yoruba 76 - 81, 83, 84, 87
 - listening and speaking of 79
 - reading and writing of 79 - 80
 - reading programme for 77 - 78
 - reading readiness skill for 78
 - teacher's use of 76 - 77
 - teaching 77
- Yoruba language writing of 30 - 34
 - composition of panel of 30
 - materials for 32 - 34
 - procedure for 31
- textbooks and workbooks for 32 - 34

Education in Mother Tongue states a lucid case for the use of the child's mother tongue as the medium of education for at least the first twelve years of his life. In this period which is considered the most formative stage of a child's development, education in mother tongue should be an inalienable right.

The book which is a product of the Ife Primary Education Research Project shows how a mother tongue education was successfully planned, organized and implemented in a section of the country and how the various problems that emerged were solved. Designed for those involved at all levels of education, the book will also serve as a useful reference material for all students of Institutes of Education. It also proffers frank suggestions to those African countries that are interested in replicating the *Ife Mother Tongue Six Year Primary Project*.

ISBN 978 248133 0



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